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ABSTRACT

The study examined the personal, social, and economic correlates of job-finding of young men. The data base was the National Longitudinal Survey, 1966-1969. Younger, less educated youth relied more heavily on informal channels. Increasing age and education led to a slight shift from informal to formal channels, although informal still dominated. As white youth matured they relied less on friends and relatives and schools and more on formal methods except schools. For both races increased education led to a rise in the use of formal techniques, particularly schools. While blacks relied more heavily on friends and relatives than did whites, race was less important than social class with higher social class youth showing a greater use of formal channels. Youth using formal channels tended to locate white-collar jobs, particularly professional and clerical; those relying on informal had a greater chance of locating blue-collar jobs. Whites found the highest "quality" jobs through private agencies, newspapers, and the "other" channel. Among both races friends and relatives generally led to lower quality jobs. An extensive review of the literature on job-finding is included. (Author)

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THE COMPANY YOUTH KEEP:

AN EMPIRICAL ANALYSIS OF JOB FINDING AMONG YOUNG MEN 14-24

by

DAVID N. SAUNDERS

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ABSTRACT

THE COMPANY YOUTH KEEP:
AN EMPIRICAL ANALYSIS OF JOB FINDING AMONG YOUNG MEN 14-24

Greater supports for youth during the transition from school to work could conceivably lower unemployment rates and allow youth to make work conscious career decisions. One important component of smoothing transition is better job seeking techniques, which appear to have an impact on securing employment.

This study attempted to gain insight into the personal, social, and economic correlates of job finding methods used by employed males with fifteen or fewer years of education. It utilized a special longitudinal survey of the work experience of young men from 1966 through 1969. The dependent variable was the channel used to find the job held at the time of each annual survey. Independent variables were grouped into those concerned with background and situational characteristics, and those associated with the type and quality of jobs found. The major thrust of the analysis was directed toward identifying the characteristics of respondents who utilized various finding methods, and the types of jobs located through each technique.

The ways young men located jobs appeared closely tied to characteristics that influence the entry process. Younger, less educated youth relied more heavily on informal channels. Increasing age and education were characterized by a slight shift from informal to formal channels, although informal were still dominant. Also, the types

of informal and formal channels tended to change. As white youth mature they rely less on friends and relatives and schools and more on direct application, public and private employment services, and newspapers. But for both races, a rise in educational levels brought a sharp rise in the use of formal techniques, particularly school employment services. This generally resulted in less use of friends and relatives.

The major racial difference was that blacks did not change job finding methods as they grew older and relied far more heavily on friends and relatives than did white youth. Race, however, exerted less influence on job finding than did social class. Youth in the upper half of a social class scale were more likely to use formal channels than those in the lower half. A series of variables which measured youth's level of sophistication were also associated with heavier use of formal channels.

Within broad occupational groups, youth who used formal channels were more likely to locate white-collar jobs, particularly in the professional and clerical areas, while those who relied on informal methods ended up in blue-collar positions. Whites who relied on private employment agencies, newspapers, and the "other" miscellaneous channel tended to locate better quality jobs than did those using the other channels. The only formal technique leading to notably higher quality jobs among blacks was the public employment service. Among both blacks and whites, use of friends and relatives generally led to low quality jobs. For white youth, private agencies, newspapers, and the "other" channel resulted in jobs with high rates of pay. School referrals consistently led to jobs with significantly lower rates of pay than did all the other methods.

One reason disadvantaged youth have difficulty making a successful transition is low levels of labor market information and heavy reliance on friends and relatives. The critical fact is not just that advantaged youth are able to make use of a wider range of finding channels, but that they are not totally dependent on informal mechanisms. They use friends and relatives as a matter of choice, not by default. The assumption that advantaged youth are successful in their job seeking efforts because they have friends and relatives who direct them to "good" jobs does not accurately describe what seems to occur. What is probably more critical than the technique is what youth know, i.e., the level of information about the labor market, coupled with the ability to exercise choice in the way they locate jobs. While encouraging the use of formal methods may help this group somewhat, concerted efforts must be made toward increasing the levels of information the disadvantaged youth possess about the world of work. This can partly be achieved through the development of creative guidance and occupation information in the public school system as well as specific youth oriented placement services.

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DEDICATION

To my wife Ronni, and children, Jeffrey and Erica

CHAPTER I

INTRODUCTION

Since the early 1960's, changes in the United States economy and shifts in the composition of its labor force have helped create severe employment problems among what might be called marginal or peripheral workers--youth, older workers, women, and members of minority groups.[1] Marginal workers can be defined as individuals whose labor force attachment is characterized by intermittent, low-income employment, concentrated in low status industries and occupations usually in the secondary or external labor market.[2]

A significant portion of this group of marginal workers is made up of young men and women 14-24 in the transition from school to work. During the 1950's and early 1960's the ratio of unemployed teenagers 16-19 years to adults over 25 remained high yet stable at approximately 3:1. Starting around 1963 the ratio began climbing and after peaking at over 5:1 in 1969, fell to 4:1 by the close of 1971 as shown in Figure

---

[1] Dean Morse, The Peripheral Worker (New York: Columbia University Press, 1969).

[2] Sar A. Levitan and Robert Taggart III, The Job Crisis for Black Youth (New York: Praeger, 1971), pp. 17, 86; Peter B. Doeringer and Michael T. Piore, Internal Labor Markets and Manpower Analysis (Lexington: D. C. Heath, 1971), pp. 1-2; and Paul Feldman, "Efficiency, Distribution and the Role of Government in a Market Economy," Journal of Political Economy, 79 (May-June, 1971).

1.[1] During these years teenage unemployment rates averaged between 12 and 20 percent while general unemployment rates fluctuated between 3 and 6 percent as shown in Figure 2. In February 1972 nearly one-half of all the unemployed were under twenty-five.[2] These few statistics demonstrate the disadvantaged position of youth in the labor market and suggest the possible presence of structural features which affect them.[3]

Determining the causes of their difficulties is complicated somewhat by the great heterogeneity among youth who differ considerably in personal, social, family, educational, and economic circumstances. For example, labor force participation and unemployment rates vary widely according to such factors as school enrollment, time of year, age, and race.[4] Rates of nonwhite youth are twice those of comparable whites and six times those of all labor force participants over twenty-five.[5] Youth in nonpoverty areas have lower unemployment rates than those located in ghettos where between one-third and one-half of all black youth are unemployed. By any measure the situation of black ghetto youth is

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[1] Levitan and Taggart, Job Crisis, 27; and U. S. Department of Labor, 1972 Manpower Report of the President (Washington: U. S. Government Printing Office, 1972), p. 79.

[2] U. S. Department of Labor, Employment Situation, February 1972 (Washington: Office of Information, March, 1972), Table A-6.

[3] Charles C. Killingsworth, "The Continuing Labor Market Twist," Monthly Labor Review (September, 1968), pp. 12-17.

[4] William S. Bowen and T. Aldrich Finegan, The Economics of Labor Force Participation (Princeton: Princeton University Press, 1969), p. 449.

[5] Levitan and Taggart, Job Crisis, 25-29.

Figure 1

Unemployment rates of teenagers and adults*

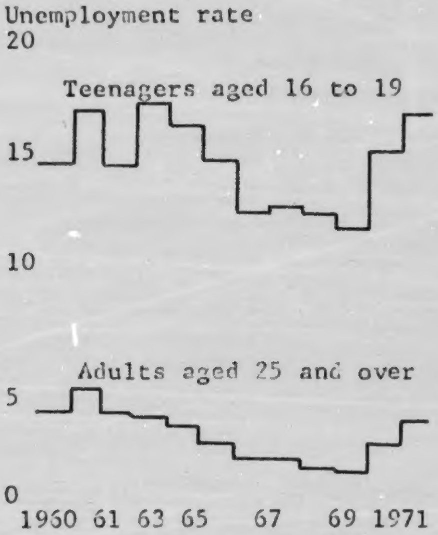
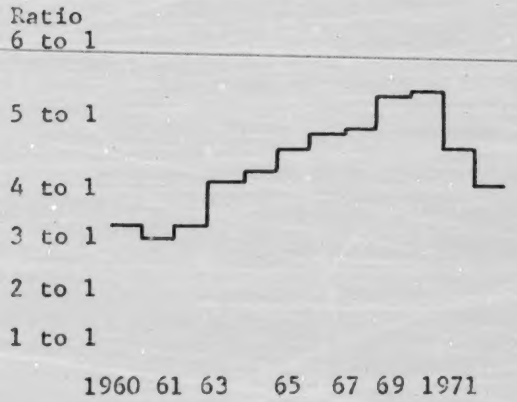


Figure 2

Ratio of teenage to adult unemployment rates*



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*U.S. Department of Labor, 1972 Manpower Report, 79.

intolerable--a national disgrace--and may well deteriorate given the increasing percentage black youth will represent of those first entering the labor force during the next decade.[1]

[1] U. S. Department of Labor, 1972 Manpower Report, 85.

CHAPTER II

TRANSITION FROM SCHOOL TO WORK

Problem of Defining Entry

The transition from school to work is a concept which has not been adequately defined. The reasons for the absence of an agreed-upon definition of what constitutes entry lies partly in the nature of the process itself. Entry can be viewed both in terms of a "process of personal mobility" where movement from one status to another occurs, and as a transitory stage in a youth's life cycle. With the former, the emphasis is on the regular movement from nonwork to work through which all pass and the stages through which this occurs; the latter focuses on changes in life style such as movement from economic dependence to independence and from school to work that occur during the period.[1] Both definitions have fuzzy and ill defined boundaries, partly because there is no sharp separation between school and work in the United States. Even in Western European countries, there has tended to be a more clearcut demarcation, the boundaries begin to blur, leaving youth in a kind of cultural limbo where they are "neither entirely outside nor entirely within the labor force."[2]

Although a set of rather fundamental shifts do occur during transition--parental support to self support, classroom to the office, factory or street corner and from living with parents to living independently--these are accomplished through a series of finite movements that vary greatly in length of time and in completeness and depend upon experiences and knowledge that has been accumulated since early childhood.

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[1] Jeffry Piker, Entry Into the Labor Force (Ann Arbor: Institute of Labor and Industrial Relations, 1968), p. 3.

[2] Ibid.

The employment context of the entry process is also subject to definitional ambiguity which complicates study. Early work experiences can be defined as the first full-time job, the first job held after school, that work experience that lasts for more than a set number of months, or the first job in the youth's chosen occupation or field.[1] Each act adds different dimensions to the ways in which a very heterogeneous group of youth enters the labor force. When entry is conceived as a varied and dynamic process rather than as a specific set of tasks, attention can be focused on interactions among a wide variety of elements.

Interest in transition flows from a number of sources. The selection and allocation of individuals within the labor market is of more than passing interest, for an individual's occupational and industrial affiliations exert considerable influence over the place he occupies in society--his life style, control over resources, and freedom of choice. There is also extensive evidence that first and later jobs are related. When youth obtain first jobs that are secure, well paid, and prestigious, future jobs are likely to possess the same qualities.[1] The reverse is also true of those whose first jobs are low paying and menial.[2] Most labor force entrants whose first jobs are in white collar fields never hold a blue-collar job; the converse is true for youths taking blue-collar entry jobs. The entry process is, furthermore, not as dependent on luck as many would believe. While the labor market in a free-enterprise society may theoretically be free and competitive, it operates in ways that circumscribe options for a number of those within it. Although entry may be a process with many interfacing and intersecting elements, this does not mean that the entry process is haphazard and unstructured, for it seems to follow inexorable logic of its own which tends to reinforce the positions of some at the expense of others.[3] As a result, the early entry process is one of those forces which channel youth into various parts of both the labor force and the social structure and if opportunities are to be expanded and handicaps of class and race are to be overcome, greater understanding of the entry process is required.[4]

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[1] Piker, 4.

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[1] Seymour M. Lipset and F. Theodore Malm, "First Jobs and Career Patterns," The American Journal of Economics and Sociology, 14 (April, 1955), pp. 247-61; and Peter M. Blau and Otis D. Duncan, The American Occupational Structure (New York: Wiley, 1967).

[2] Piker, 32.

[3] Piker, 2.

[4] Seymour Lipset, Reinhard Bendix, and F. Theodore Malm, "Job Plans and Entry Into the Labor Market," Social Forces, 33 (March, 1955), p. 224; and Edna Bonacich, "A Theory of Ethnic Antagonism: The Split Labor Market," American Sociological Review, 37 (October, 1972).

Transition in the United States

The transition of youth from school to work in the United States takes place at a considerably later date than is the case in Western Europe. Unlike the abrupt transfer that occurs in Europe, transition in the United States is gradual, beginning slowly in the mid to late teens and accelerates during the early 20's as outlined in Figure 3. At age 16 and 17 most youth attend school full time. Few seek employment during the school year, and employment is primarily confined to the summer months when youth flood the labor market.[1] By 18 or 19 years of age the movement from school to work begins to quicken. Nearly half of all youth in this cohort have graduated or dropped out of school and a large portion of them, especially the men, are seeking or holding full-time jobs. Sex starts to become an important determinant of labor force behavior as a considerable number of the women assume family responsibilities.[2] By age 20 or 21 three-quarters of all youth are out of school, and within two years the transition is almost complete. The transitions of black and white youth are somewhat different, the former showing somewhat lower rates of school enrollment, higher concentrations in service industries and government and in lower-level occupations, higher unemployment rates and a smaller portion of women who drop out of the labor market between ages 20-24.

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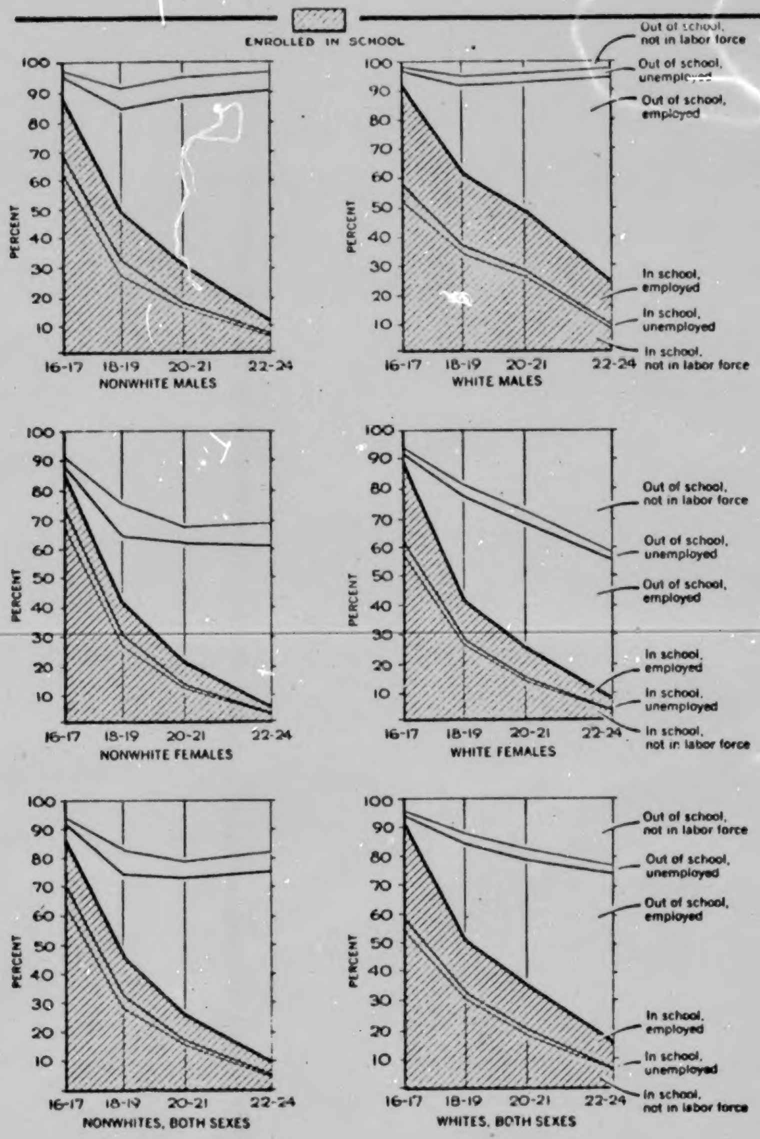
[1] Levitan and Taggart, Job Crisis, 39, 53-54.

[2] Valerie K. Oppenheimer, The Female Labor Force in the United States (Berkeley: Institute for International Studies, 1970.

[3] Levitan and Taggart, Job Crisis, 38.

Figure 3

Employment and School Enrollment Status of Youths
Ages 16 to 24, October 1969*



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* Levitan and Taggart, Job Crisis, 38.

Variability in the Transition of Youth

For the purpose of this research, youth are defined as those between 14 and 24. This is done for practical reasons to conform to the data set being examined. While youth may appear a homogeneous group at first glance, this is an illusion.

> There is probably no other age group of males between the ages of 14 and 65 in which a few years make as much difference as they do in the case of the group under consideration in this study. At age 14 the youth is hardly more than a child; he is just embarking on his secondary education and is below the legal age limit for almost all types of full-time employment; he generally has no economic responsibilities; he is just emerging from the fantasy stage of occupational aspiration and he has very little knowledge or understanding of the dimensions of the world of work. Four years later he has completed high school and, if not in the armed services, either has entered the labor market for full-time employment or has continued his education or training in preparation for a more-or-less specific work career. By age 24, he has, in the vast majority of cases, left school permanently, has typically assumed the economic responsibilities of a family, and frequently has a more-or-less firm occupational commitment.[1]

Patterns of Entry

There has been a clear trend toward delaying the age at which youth enter the labor market. Where once youth entered in the early teens, many are now waiting until their early and mid-twenties before they make a permanent career attachment. The primary cause of this delay has been educational requirements for more complex jobs, although other factors--affluence, changing child labor laws, and decline in family farming--have certainly had an impact.[1] Young men and women show different trends with regard to labor force participation. Participation of men has consistently declined while women show an upswing since the end of World War I.[2] When employed, teenagers and men in their early twenties tend to be concentrated in positions as laborers, operators, and service workers which are part-time and low-paid. Teenagers as a group have a heavy likelihood of being in agriculture.[3]

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[1] Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth, I, Manpower Administration Research Monograph No. 16 (Washington: U. S. Government Printing Office, 1970), p. 188.

Personal Determinants of Early Labor Market Activity

Given the vast differences in the situations and backgrounds of youth from their mid-teens to middle twenties, it is not surprising that their early labor market activity should show extensive variability. The two main personal determinants of early employment patterns--age and enrollment status--are clearly interrelated. Within these categories further variation is caused by such variables as high school curricula and educational aspirations, parents' occupation, marital status, family structure, years of education, and race.[4] Family background plays an important role in preparing youth for entry. In particular, "these factors affect the young work force entrant mainly through his development of achievement motivation, basic academic skills and values necessary for successful adjustment from school and work."[1] In addition, there are a number of institutional determinants, such as national and local labor market conditions and the functioning of the labor market, which must not be neglected.

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[1] Sar A. Levitan, Garth L. Mangum, and Ray Marshall, Human Resources and Labor Markets (New York: Harper and Row, 1972), p. 59.

[2] Jacob Mincer, "Labor-Force Participation and Unemployment: A Review of Recent Evidence," in Robert A. Gordon and Margaret S. Gordon, eds., Prosperity and Unemployment (New York: Wiley, 1966), p. 73.

[3] Levitan, Mangum, and Marshall, 60.

[4] Career Thresholds, I, 79, 180.

School and Entry

The employment situation of students and non-students are so diverse that they are almost always examined. In general, school enrollees are less likely to be in the labor force than those not enrolled. The former, if they work, also have a greater chance of becoming unemployed, working part-time, working in white collar jobs, and being located in non-goods producing industries.[2]

A number of factors appear to influence decisions regarding termination or continuance in school. Some of the most important include father's occupation, type and location of community, whether both parents are present, and type of high school curriculum in which enrolled.[3] While wide differences exist between blacks and whites in enrollment ratios, differentials disappear when blacks and whites of similar backgrounds are compared, suggesting that social class may be a crucial determinant of enrollment as well as of the likelihood of graduation.[4]

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[1] Piker, 147.

[2] Career Thresholds, I, 189. [3] Ibid., I, 47. [4] Ibid.

Premature termination--dropping out--has serious, almost irreversible, consequences for future occupational mobility. "Although similar proportions of dropouts and graduates gain employment, the former enter the labor force through lower-status jobs. . . receive lower wages and experience less upward mobility on the job" than do the latter.[1] Not only is the dropout forced to take unskilled first jobs, but like the student, he is also much more vulnerable to unemployment.[2] This is not to argue that staying in school is the panacea--a road to occupational success--for there is increasing evidence that suggests that dropping out could be more appropriately viewed as a symptom than a problem and that a number of other factors both inside and outside school systems--restricted backgrounds, discrimination, unrealistic hiring requirements, alienation, boredom, authoritarian and unsympathetic school settings--influence the decision to remain in school.[3] What it does suggest is that certain types of school experiences tend to be associated with the success or failure of the entry process.

Patterns of Entry and Reasons for Leaving School

If there are forces operating which tend to channel youth into various segments of the labor market, then these patterns should show up in the entry process. One of the early examinations of the relation between school and entry into the labor market was carried out by Lipset and Bendix in Oakland in the late 1940's.[1] The work histories of nine hundred persons were obtained to determine the extent of mobility that occurs as well as the relationship between early job plans and the entry process. The authors found that the reason for entering the labor force--completed school, voluntarily left school and forced to work--had an important impact on the experience that followed and that the reasons were closely linked to the socio-economic status of the respondent's family. Entrants who completed school were more likely to come from white collar or professional families, to have higher educational levels, and to settle in professional or white-collar jobs. The school leavers were composed of two distinct groups. On one side were those who left school voluntarily to take employment. They "tend to come from families of business owners, in managerial or skilled occupations and to enter the labor market as salesmen, semi-skilled workers or business owners."[2] There was no great educational variation within this group. On the other hand were those who were forced to go to work. This group, most of whom have less than twelve years education, ended up in predominantly skilled, semi-skilled, or unskilled jobs.[3] These findings are shown in Tables 1 and 2. While there is no question that the age and educational level of entrants may have changed since this

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[1] Piker, 148.

[2] Career Thresholds, I, 79; and U. S. Department of Labor, 1973 Manpower Report of the President (Washington: U. S. Government Printing Office, 1972), p. 16.

[3] Charles Silberman, "What Hit the Teenagers," Fortune, 71 (April, 1965), pp. 130-34.

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[1] Lipset, Bendix, and Malm.

[2] Ibid., 224. [3] Ibid., 223.

Table 1

Percentage of Principal Wage Earners Giving Specified Reasons for Entering the Labor Market by Last Grade Completed in School*

Last Grade Completed in School	Total		Reasons for Entering Labor Market			
			Finished School	Forced to Go to Work	Voluntarily Left School	Other
	Number	Percent	Percent	Percent	Percent	Percent
16 and Higher**	72	100	61	12	24	3
13 - 15***	113	100	37	21	35	7
12****	256	100	41	29	27	3
9 - 11	196	100	18	42	38	2
0 - 8	254	100	14	51	33	2
All Grades	891	100	29	36	32	3

*Lipset, Bendix, and Malm, 223.

**Graduation from college and advanced study.

***The first three years of the usual four-year college program.

****Graduation from high school.

Table 2

Percentage of Principal Wage Earners Giving Specified Reasons for Entering the Labor Market by Occupational Group and Division of First Job*

Occupational Group and Division of First Job	Total		Reasons for Entering Labor Market			
			Finished School	Forced to Go to Work	Voluntarily Left School	Other
	Number	Percent	Percent	Percent	Percent	Percent
Professional	26	100	73	4	19	4
Semi-professional	36	100	53	19	25	3
Business Owned and Executive	12	100	17	33	42	8
White Collar	230	100	38	31	27	4
Sales	74	100	27	28	43	2
Skilled	87	100	22	45	30	3
Apprentice	55	100	27	33	35	5
Semi-skilled	162	100	19	42	38	1
Unskilled and Miscellaneous Odd Jobs	155	100	23	43	32	2
Farm	59	100	24	49	22	5
All Nonmanual	378	100	39	23	30	3
All Manual	459	100	22	41	34	3
All Groups & Divisions	896	100	29	36	32	3

*Lipset, Bendix, and Malm, 223.

study, the presence of different patterns determined by socioeconomic and racial characteristics is still very real today.

Race and Entry

Race casts an unmistakeable pall over the entry process, although the relationship between race and entry may be caused by the disadvantaged economic status of blacks. Black youth are less successful in establishing themselves on a first-time basis, have to look longer than whites, find entry into many industries and occupations blocked by covert and overt forms of discrimination and have generally lower participation and higher unemployment rates. While high-status entry jobs do confer a sizable later advantage, blacks are less likely than whites to share in these at a later date. Blacks lose out in three ways: they are less able to obtain good entry jobs, they are unable to overcome the handicap of poor entry positions in later jobs, and they are more likely to lose any initial advantage they may have obtained than are their white counterparts.[1] Among male graduates of high school, whites are more likely to enter through white-collar jobs than are blacks who are concentrated primarily in laboring or service jobs. Although whites earn more than blacks holding age, occupation, and years of education constant, it should be noted that the spread of wages among those not enrolled is relatively small especially among young men 20-24.[2] While blacks who finish high school do better than blacks who do not, the differences are much smaller than those found among whites. This suggests that at best the black high school graduate has a fighting chance in his effort to enter a white-dominated economic structure. The same unfortunately is not true of the black dropout who must fend for himself.

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[1] Piker, 32-33.

[2] Career Thresholds, I, 116.

> Generally speaking . . . nonwhite youths are deriving less occupational payoff than white youths from their education, whether measured in terms of the ability to get and keep jobs, to get entry jobs of relatively high status, or to make relatively good wages.[1]

Because black youth have tended to be last hired and first fired, their unemployment rates have been double those of whites. Among certain groups and in certain areas it has been even higher.[2]

Age and Entry

The large changes in labor market behavior that occur during the years 14-24 can be shown to be directly related to age. With some exceptions, age is directly related to both participation and unemployment rates. Age is also associated both with number of hours worked and type of employment. The youngest workers are more likely to be in farm or laboring positions; the older are usually in white collar, particularly technical and professional, and tend to be working full time.[1] The association between age and educational attainment is unclear, and "it is not possible to be certain in many cases about how much of this relationship with age reflects the greater maturity and experience of older youth and how much it reflects their greater educational achievement."[2] In summary, the differences in unemployment between young men in their teens and twenties tends to reflect their student status, race, educational levels, and marital status, with the lowest rates occurring among that group that is highly educated, white, married, and out of school.

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[1] Piker, 149.

[2] Richard B. Freeman, "Changes in the Labor Market for Black Americans," *Brookings Papers on Economic Activity*, Vol. I (Washington: The Brookings Institution, 1973), pp. 67-132; Levitan and Taggart, *The Job Crisis*; and U. S. Department of Labor, *1973 Manpower Report*, 20.

Transition in Western Europe

With few exceptions the nations of Western Europe have dealt more effectively with the transition of youth from school to work than has the United States, although comparison with Western European data is handicapped by the use of different coverage and sampling procedures and differing definitions of unemployment. This does not, however, vitiate the fact that in Western Europe rates of youth unemployment are generally lower than those found in the United States as shown in Table 3. In addition there is frequently a smaller spread of adult youth rates than is the case in the United States. This raises the question: how have European countries managed to keep their rates low and minimize the spread between youth and adults?

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[1] Career Thresholds, I, 191.

[2] Ibid.

Table 3

Unemployment Rates by Age and Sex Adjusted to U.S. Concepts in 9 Industrial Countries, 1968 and 1970*

Sex and age	United States	Australia	Canada	France	Germany	Great Britain	Italy	Japan	Sweden
				1968	1/				
Both Sexes:									
All ages..........	3.6	1.5	4.8	2.1	1.5	3.7	3.8	1.2	2.2
Teenagers 2/......	12.7	4.2	10.8	6.4	3.8	4.4	13.4	2.3	5.6
20 to 24 year olds.......	5.8	1.9	6.3	3.9	1.4	4.0	10.0	1.8	3.2
25 to 54 year olds.......	2.3	1.0	3.6	1.4	1.1	3.3	2.2	1.0	1.7
55 and over.......	2.2	.7	4.2	1.2	1.6	4.4	1.3	1.2	2.1
Male:									
All ages..........	2.9	1.1	5.5	1.6	1.3	4.2	3.6	1.2	2.3
Teenagers 2/......	11.6	3.6	12.7	5.2	3.7	5.5	13.6	2.6	5.5
20 to 24 year olds.......	5.1	1.5	7.7	3.8	1.3	4.5	10.2	1.8	3.3
25 to 54 year olds.......	1.7	.7	4.1	1.0	.9	3.7	2.2	1.0	1.7
55 and over.......	2.1	.8	5.0	1.2	1.6	5.1	1.6	1.5	2.6
Female:									
All ages..........	4.8	2.6	3.4	2.9	1.8	2.8	4.5	1.2	2.1
Teenagers 2/......	14.0	4.8	8.3	8.0	4.0	3.3	12.9	2.0	6.5
20 to 24 years old.......	6.7	2.6	4.2	4.1	1.6	3.2	9.7	1.8	2.9
25 to 54 years old.......	3.4	2.1	2.2	2.2	1.4	2.7	2.2	.9	1.6
55 and over.......	2.3	.6	3/	1.1	1.5	2.7	.3	.8	1.2

*U.S. Department of Labor
Bureau of Labor Statistics
Office of Productivity and Technology
Division of Foreign Labor Statistics and Trade
July 1972

Table 3--Continued

Unemployment Rates by Age and Sex Adjusted to U.S. Concepts in 9 Industrial Countries, 1968 and 1970*

Sex and age	United States	Australia	Canada	France	Germany	Great Britain	Italy	Japan	Sweden
Both Sexes:				1970 4/					
All ages..........	4.9	1.4	5.9	5/ 2.2	0.6	4.0	3.4	1.2	1.5
Teenagers 2/......	15.3	6/	13.5	6/	2.0	6.1	12.9	2.0	4.5
20 to 24 year olds.......	8.2	6/	8.3	6/	.7	4.3	9.5	2.0	2.5
25 to 54 year olds.......	3.4	6/	4.3	6/	.5	3.2	1.8	.9	1.1
55 and over.......	2.8	6/	4.9	6/	.5	4.7	.9	.9	1.7
Male:									
All ages..........	4.4	1.0	6.6	6/	.5	4.7	3.1	1.2	1.3
Teenagers 2/......	15.0	6/	15.0	6/	1.6	7.8	13.2	2.7	3.5
20 to 24 years old.......	8.4	6/	10.5	6/	.6	5.2	9.4	1.9	2.6
25 to 54 years old.......	2.8	6/	4.8	6/	.4	3.6	1.8	.9	.9
55 and over.......	2.9	6/	5.5	6/	.5	6.0	1.1	1.4	1.8
Female:									
All ages..........	5.9	2.2	4.5	6/	.8	2.7	4.3	1.1	1.8
Teenagers 2/......	15.1	6/	11.4	6/	2.4	4.4	12.4	1.3	5.7
20 to 24 years old.......	7.9	6/	5.1	6/	.7	3.2	9.7	2.2	2.4
25 to 54 years old.......	4.5	6/	2.9	6/	.7	2.4	1.8	.9	1.4
55 and over.......	2.8	6/	3/	6/	.5	2.0	.4	3/	1.6

1/Annual averages except for France and Germany; French data are for March 1967; German data for April 1968.

2/16-19 year-olds in United States, France and Sweden; 15-19 year-olds in Australia, Great Britain, Germany, and Japan; 14-19 year-olds in Canada and Italy.

3/Not statistically significant.

4/Annual averages, except for Germany. German data are for April 1970.

5/No further breakdown available.

6/Not available.

Of critical importance has been the ability of European countries to maintain continued high levels of employment over the last two decades.[1] In fact, countries such as West Germany have until recently found themselves faced with chronic labor shortages which have forced them to import workers from less developed areas.[2] Much of their success can be attributed to demand management and labor market policies which stimulated growth, kept unemployment low, and limited the sharp cyclical fluctuations--rapid expansion followed by recessions and then expansions--that plagued the United States during the 1950's and early 1960's.

A second important reason the nations of Western Europe fared better is that they did not experience the sizable influx of young workers into their labor forces which occurred in the United States as a result of the post World War II baby boom.[3] A third probable cause of differentials is the constant entry and re-entry of American youth into the labor market. Schooling is longer and there is greater overlap between school and work.[4] A final reason that has sometimes been cited is the absence of minimum wage laws or the use of special youth minima in Western Europe. This, it is argued, helps remove the reluctance shown by many employers about hiring youth who must be trained to perform a job but may not stay long enough to justify the investment. Differentials between youth and adult wage rates in six European countries are shown in Table 3. At best the impact is slight.[1]

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[1] Edward F. Denison, Why Growth Rates Differ (Washington: The Brookings Institution, 1967), pp. 16-20.

[2] Constance Sorrentino, "Comparing Employment Shifts in 10 Industrialized Countries," Monthly Labor Review (October, 1971), pp. 3-11.

[3] Charles Stewart, "Youth Unemployment, Some International Perspectives" (Washington: Bureau of Labor Statistics, July [illegible]7, 1969) (mimeographed), pp. 14-15; and Franz A. Groemping, "Transition from School to Work in Selected Countries," in The Transition from School to Work, A Report Based on the Princeton Manpower Symposium (Princeton: Industrial Relations Section, 1968).

[4] Garth L. Mangum, The Emergence of Manpower Policy (New York: Holt, Rinehart and Winston, Inc., 1969), p. 110.

The success of European efforts is also influenced by the low levels of expectation and aspiration and the acceptance of limited social and economic mobility which have made European youth more willing to settle for secure employment in traditional occupations and give up possible future mobility.

The Importance of Institutions which Aid Transition

The above do not fully explain lower youth unemployment rates in European countries and their low youth-adult unemployment ratios. One additional explanation lies in the institutional mechanisms used to bridge the gap between school and work. Western European countries appear to have significant cultural and institutional differences from the United States in the manner "by which youth are educated, trained and introduced in the world of work."[2] Of particular importance is the large number of programs or services available to youth during the last years of school and early years in the labor force--the period of transition from school to work.

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[1] Levitan and Taggart, Job Crisis, 56-7; and Stewart, 16.

[2] Stewart, 3.

There is little question that transitional supports are an important reason for low rates of youth unemployment. Examples of such efforts include apprenticeship programs, youth-oriented public employment services, vocational guidance and training provided by schools or public employment services, and training programs sponsored by industry and government.[1] As a result of these programs, a large percentage of youth leave school with jobs or long term training programs already arranged although there is some variation from country to country. The success of these efforts is enhanced by: (1) the dual nature of European educational system, which has traditionally segregated academic and nonacademic students; (2) the early age at which youth are permitted to terminate their education; and (3) the lower wage levels that prevail for youth in many occupations.[2] In most of the European countries compulsory education ends between ages 14 and 16, and since there are limited opportunities for continued schooling, most young people become full time workers.[3] This is in sharp contrast to the United States, where many youth continue in school past the minimum age and can work and attend school at the same time.

There are certain dangers in comparing American and European experiences. A number of factors endemic to the latter--smaller size and greater homogeneity of population, different levels of technological development, and age distributions and more stratified social systems--reflected in both the educational and occupational structures, combine to limit the direct applicability of European methods to the United States. As a result, such comparisons do not provide instant solutions. At best they suggest clues as to how to approach the problem and the types of innovations that could be attempted.

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[1] Groemping, 11-13, 19, 32, 36.

[2] Stewart, 3-4; and Groemping, 5.

[3] Stewart, 47.

The smooth transition from school to work in Western Europe is not without its drawbacks, for it tends to lock youth into traditional vocational patterns and life styles. An important issue facing the industrialized countries of Western Europe will be how to continue to protect youth against the risks of unemployment while at the same time broadening the educational and occupational opportunities open to them. Much the same problem would occur in any United States effort to provide greater structural supports to youth in transition. Social and economic mobility should not be sacrificed to economic security.[1] Separate tracking systems whether in schools or jobs can easily become a wastebasket for the disadvantaged, exacerbating racial and economic segregation.

Problems of Transition in the United States

Youth in the United States, are less likely than European youth to leave school unprepared "without having learned about the nature of the jobs that exist in a community, the different industries, what employers expect from employees and the agencies which can give them help."[1] This is in part the result of vocational education and guidance programs which have failed to provide either adequate labor market information or occupational skills and an underutilized public employment service. Within vocational education, "training occupations still reflect more the 1917 categories than current labor market needs."[2] The problems of the improper focus of vocational education is further complicated by the low status held by such programs, although most jobs in the United States do not require college degrees and most high school students are not preparing for college entrance.[3]

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[1] Stewart, 47; and Groemping, 3, 9.

Youth entering or re-entering the labor market are usually left to their own devices. This "Horatio Alger" approach to twentieth century problems is not in the best interests of many who are in the midst of an unsettled period of their lives and are unsure of themselves and their career interests.[4] Lacking adequate basic education and occupational skills and institutional supports during transition, it comes as no surprise that there is considerable sporadic and undisciplined job searching and quitting and a frequent mismatch of interests, skills and occupations. Other countries, notably Japan, have demonstrated that it is possible to develop an academically oriented educational system while at the same time providing strong supports to those who leave school and enter the labor force.[1]

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[1] Groemping, 6. [2] Mangum, 110.

[3] Levitan and Taggart, Job Crisis, 108-09; and Mangum, 108.

[4] U. S. Department of Labor, 1973 Manpower Report, 92.

The absence of structural supports creates a situation where those searching for work must fall back on their own resources, and it is therefore not unexpected that youth find most of their jobs through relatives or by direct contacts with employers. Only 10 percent of out of school nonwhite youth, mostly black, and 8 percent of their white counterparts use such institutional mechanisms as United States Public Employment Service, school employment agencies or counselors.[2] This heavy reliance on informal means provides some insight into the predicament faced by the black youth. Since employment is often found through personal connections and since only a small percentage of these youth have peers or adult friends and relations with jobs that lead to satisfying work careers, black youth have difficulty locating positions.

Youth-Oriented Manpower Programs in the United States

During the 1960's many manpower programs served youth in transition. Examples include: the Manpower Development Training Act, the Neighborhood Youth Corps, the Job Corps, Working Experience and Training, vocational education, and the United States Employment Service. These programs varied considerably along such dimensions as percentage of youth served, types of training provided, stress on job referral, vocational counseling or placement, expenditures, numbers served and success. Many focused on disadvantaged youth. Both the effect--the consequences intended or unintended--and the effectiveness--the ability to achieve the desired goal--have been subject to extensive, often acrimonious, debate in recent years.[1] Since the purpose of this discussion is not an exegesis of federal manpower efforts, perhaps the safest conclusion that can be drawn about the efficacy of manpower programs in the last decade was that a great deal was learned. Mangum takes this position when he states that "the 1960's insofar as manpower policy is concerned, are most appropriately viewed as an experimental period and failure."[2] There is little doubt that the rhetoric did not match the reality.[3]

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[1] Stewart, 8. [2] Career Thresholds, I, 100.

As far as youth are concerned, the purpose of most manpower programs is to help create a permanent attachment to the world of work. The mechanisms used--provision of basic educational or vocational skills, labor market information, referral, counseling, or direct employment--may differ but the goal is the same; facilitating the transition from school to work during the last years of high school or in those immediately following. It appears clear that

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[1] Mangum, 130-36; Sar A. Levitan and Garth L. Mangum, Federal Training and Work Programs in the Sixties (Ann Arbor: Institute of Labor and Industrial Relations, 1969); and Levitan and Taggart, Job Crisis, 116.

[2] Mangum, 134.

[3] Sar A. Levitan and Robert Taggart III, Social Experimentation and Manpower Policy (Baltimore: John Hopkins Press, 1971).

> . . . successful preparation for employment begins with early exposure to concepts of the world of work and progresses through familiarity with alternate vocational choices to broad preparation for employment training, ultimately, whether in school or on-the-job, to competence in particular skills with institutional assistance in the transition from the classroom to the work place.[1]

It was with this end in mind that the 1972 Manpower Report of the President suggested such solutions to youth unemployment as more realistic career-oriented education, expanded apprenticeship training, elimination of artificial hiring requirements, federally assisted work and training programs and better counseling for both in- and out-of-school youth.[2]

The Importance of Transition

The lack of support provided youth in the United States during transition contributes to their extremely high levels of unemployment.[3] Because jobs are scarce and wage levels fall in a narrow band, youth often take whatever is available with little concern for the nature of the job, opportunities for learning, advancement, career prospects and the intrinsic satisfaction of the work. This can cause or reinforce the discouragement, despair and cynicism felt by many, especially those with few skills and limited education, and may account for the large-scale nonparticipation in the labor force of certain groups such as black men 20-44.[1] There is no question that difficulties in locating employment can influence both the immediate desire to work and future work attitudes as shown by the fact that youth appear to drop out of the labor force or stay in school more in weak labor markets than in tight ones.[2] The choices made during the late teens are frequently irreversible, and youth unknowingly lock themselves into certain employment and socioeconomic patterns. This raises questions about the class functions the present archaic and unorganized labor market serves. While the means used in the United States and in Western Europe differ significantly, their result--limited mobility for a significant portion of the young people--seems similar.

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[1] Mangum, 144.

[2] U. S. Department of Labor, 1972 Manpower Report, 3, 85-88.

[3] Harold L. Sheppard and A. Harvey Belitsky, Promoting Job Finding Success for the Unemployed (Kalamazoo: W. E. Upjohn Institute, 1968).

Supports for Youth Within the Context of Larger Policies

While manpower programs and services focused directly on youth in transition can meet some of their special needs, such efforts must be cast within the context of more aggressive economic and social policies if they are to be more than a palliative. Examples of the latter include: maintaining levels of demand and low levels of unemployment; provisions of jobs in either the public or private sectors for those willing but unable to find jobs; a strong commitment to equal opportunity and programs for depressed regions such as relocation assistance or economic stimulation.[1] When concrete steps toward reaching these goals have been made, then and only then will programs and services oriented to or serving youth have a real chance for success.

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[1] Levitan and Taggart, Job Crisis, 44-77; Herbert E. Striner, Continuing Education as a National Capital Investment (Kalamazoo: W. E. Upjohn Institute, 1971); and U. S. Department of Labor, 1972 Manpower Report, 80-81.

[2] Bowen and Finegan, Economics of Labor; and U. S. Department of Labor, 1972 Manpower Report, 81.

Goals of Programs to Improve Transition

While efforts directed at facilitating the transition of students will, of necessity, be multifaceted, they must include a variety of provisions to: (1) increase the knowledge young people possess about the labor market (job finding techniques, knowledge of services available, skill requirements of jobs and positions available in various geographical areas)--the information component; (2) help youth determine their interests and capabilities--the counseling and testing component; (3) improve the quality of basic education available to disadvantaged youth and vocational education available to all students--the skills and educational component; (4) provide opportunities for post-school training for those lacking basic education or skills--the retraining or recurrent education component; (5) provide for income maintenance during periods of unemployment and retraining--the support component. Common to all five is the idea that youth should be able to make intelligent choices about the future, choices many are denied today. The final goal of all youth manpower programs is not just employability and jobs but choices and satisfying careers.

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[1] Mangum, 152, 155.

[2] Mangum, 152; and Jim Miller, "Education and Jobs: Lessons of the '60's," Social Policy, 2 (January-February, 1972), pp. 43-45.

CHAPTER III

THEORETICAL BACKGROUND

The Labor Market

The first of the two major issues bearing on search behavior is the structure and operation of the market in which labor is supplied and demanded. Labor markets in industrialized countries can be viewed as social systems which "serve as means of allocating and rewarding economic roles (or reciprocal activities) . . . a social order which allows purposeful, peaceful and orderly behavior for economic production and satisfaction of individual wants."[1] The exchanges that occur are interconnected by common forces that relate to the characteristics of the labor and the demand and supply conditions under which it is sold. The primary functions of a market for labor are the allocation of labor to different types of uses and setting of the price that will be paid for it.[2]

In order to examine the underlying forces that relate the individual exchanges to the role played by information and search in this process, some conceptual model of the labor market is needed. The most frequently used organizing framework is embodied in traditional competitive economic theory with its unregulated, freely functioning labor market. Labor economists have traditionally viewed unorganized markets with considerable hostility due to their supposed inability to efficiently allocate labor. Rees and Shultz note that

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[1] J. H. Smith, "The Analysis of Labor Mobility," in B. C. Roberts and J. H. Smith, eds., Manpower Policy and Employment Trends (London: G. Bell & Sons Ltd., 1971), p. 91.

[2] Levitan, Mangum, and Marshall, 201-02.

> . . . it is often asserted in the literature on labor markets that the organized markets for commodities or securities are models of well-functioning markets and that the state employment services provide the closest analogies to such organized markets in the labor sector.[1]

Six major assumptions of the competitive labor market can be identified. They are:

1. employers and workers have fairly accurate knowledge about wages and job opportunities throughout the market.

2. employers and workers are "rational" in the economic sense--that is, employers act to maximize profits and workers act to maximize satisfaction from real wages.

3. each employer and worker represent such a small part of the total demand or supply for labor that their individual decisions have no influence on wages.

4. there are no obstacles to mobility of labor and other factors of production.

5. workers and employers act individually and not in concert with other workers (through unions) or employers (through associations) in making wage and employment decisions.

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[1] Albert Rees and George Shultz, Workers and Wages in an Urban Labor Market (Chicago: University of Chicago Press, 1970), pp. 201-02.

6. labor within a particular market is homogeneous and interchangeable.[1]

The most important assumptions for this analysis concern the nature of information--the extent to which it is free, perfect and homogeneous--and the degree to which buyers and sellers are all the same.

Validation of these assumptions has been attempted through investigation of a number of labor market phenomena. These include the criteria used by workers to leave, take or keep jobs, knowledge of job opportunities and the ways a job is found, the extent of movement from low to high-wage employment, the movement of labor in ways that reduce wage differences and the extent to which wages for the same quality of labor are equal. Most analysts have, as would be expected, found considerable divergence between the reality of labor market operation and the postulates of competitive theory.[2] At best, it serves as a means to organize and simplify interrelated phenomena and to identify causal relationships.

A closer match between competitive theory and real world reality has been obtained through relaxation and modification of some of the underlying assumptions. One modification, which provides insight into the problems faced by youth in transition, involves the recognition that

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[1] Levitan, Mangum, and Marshall, 200.

[2] Levitan, Mangum, and Marshall, 214-15; Herbert Parnes, Research on Labor Mobility (New York: Social Science Research Council, 1954), pp. 162-79; and Neil W. Chamberlain and Donald E. Cullen, The Labor Sector (New York: McGraw-Hill, 1965), pp. 56-58, 340.

sellers are not all alike but are segmented and compartmentalized into several distinct spheres, each serving different industries and workers. The most advantaged sector, often labelled the core or mainstream economy, is composed of industrial firms engaged in durable manufacturing, construction trades, and extraction industries which are characterized by high profits and productivity, high capitalization and easy access to capital, plus, in some cases, extensive political and economic power and sizable governmental contracts. The labor market that serves the core economy can be described as both primary and internal.[1] The market is primary in the sense that it offers stable high-wage employment, considerable job security, opportunities for advancement and good working conditions. It is internal in that institutional rules developed by firms or crafts rather than competitive forces allocate labor, determine the prices paid for labor and control the flow of workers into and out of employment. Dunlop defined the internal market as the "complex of rules which determines the movement of workers among job classifications within administrative units such as enterprises, companies or hiring hall."[2] Employers tend to develop complicated sets of procedures relating to promotion, discharge, retirement and entrance for various job classifications. Temporary or permanent admission is restricted to a small number of classifications, so-called ports of entry, which are accessible to workers with specific characteristics at particular points in their work careers.[1] The port of entry represents one of the few interfaces between the internal and external market.

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[1] Russel A. Nixon, "New Labor Force Entrants," (New York: Columbia University School of Social Work, 1970 ca) (mimeographed); and Doeringer and Piore, 40.

[2] John T. Dunlop, "Job Vacancy Measures and Economic Analysis," The Measurement and Interpretation of Job Vacancies (New York: National Bureau of Economic Research, 1966), p. 32.

The peripheral economy, the other major sector, is composed of industries located in such areas as nondurable manufacturing, agriculture and retail trade, which are noted for their small size, labor intensity, low profit margins, low productivity, high degree of competition and limited economic and political power. The market that serves this sector can be characterized as marginal, external or secondary.[2] Employment, when available, is low paying, without security and unstable. Workers tend to have limited skills and education, and are often women, youth, or members of minority groups. Bureau of the Census data, shown in Tables 4 and 5, on median earnings and percent earnings less than $4000 for men 18 to 24 and percent of all heads of households by industry, illustrate this phenomenon. The status of jobs of workers in these industries is generally lower than those in the primary market.

A third less institutionalized sector--the irregular economy--can also be identified, although it tends to overlap with the peripheral.

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[1] Dunlop, 32.

[2] Barry Bluestone, "The Tripartite Economy: Labor Markets and the Working Poor," Poverty and Human Resources (July-August, 1970), p. 18; Nixon, 3; and Levitan, Mangum, and Marshall, 220.

Table 4

Median Earnings and Percent Earnings Less than $4,000 of Males 18 to 24 in 1969 by Industry*

Occupation	Total (Millions)	Less than $4,000 Number (Millions)	Percentage of Total	Median Earnings
Total	6.97	3.79	54	$3,634
Agriculture, forest, and fisheries	.28	.21	75	2,056
Mining	.66	.26	39	5,016
Construction	.58	.27	45	4,318
Manufacturing	2.07	.87	42	4,685
Durable	1.33	.52	39	4,989
Nondurable	.72	.34	47	4,190
Transportation, communications, other public utilities	.48	.20	42	4,681
Wholesale/retail trade	1.75	1.1	63	2,821
Finance, insurance and real estate	.21	.09	42	4,541
Business repair services	.27	.15	56	3,502
Personal services	.13	.093	72	2,351
Entertainment and recreation	.089	.067	75	1,922
Professional and related services	.76	.53	70	2,434
Public administration	.27	.13	48	4,279

*Bureau of the Census 1970 Census of Population Industrial Characteristics--PC(2) 7B (Washington: Government Printing Office, 1973), pp. 177-8, 229.

Table 5

Percent in Poverty for All Family
Heads by Industry*

Occupation	Female	Male
Total	20.3	5.1
Agriculture, forest, and fisheries	43.8	20.7
Mining	7.4	5.6
Construction	12.5	6.6
Manufacturing	15.2	3.6
Durable	13.2	3.6
Nondurable	17.1	3.7
Transportation, communications, and other public utilities	10.9	4.2
Wholesale/retail trade	24.1	4.9
Finance, insurance and real estate	10.5	2.5
Business repair services	17.7	5.9
Personal services	42.7	8.3
Entertainment and recreation	23.2	6.2
Professional and related services	16.4	3.3
Public administration	9.2	2.1

*Bureau of Census, Industrial Characteristics, pp. 177-8, 229.

It includes a range of licit and illicit activities which are nontraditional in their learning and opportunity structures and an outgrowth of ghetto life. This economy is serviced by what might be termed a submarginal labor market that provides jobs "characterized by very low entry requirements, low wages, high rates of turnover, informal work patterns and work skills, and competencies specific to ghetto life."[1] For the purpose of this analysis the marginal and submarginal markets will be considered as a unit.

Reasons given for the emergence of segmented noncompeting markets range from skill specificity--skills possessed by workers relate only to a limited range of jobs--and the heavy reliance upon on-the-job training in skill acquisition to a heavy reliance on customary rules and procedures to control seniority, entrance, and advancement.[2] One point of disagreement is whether the nature of the industries in the peripheral or irregular economy or the characteristics of workers are the causes of the bifurcated labor market. The issue is whether low wages cause unstable work patterns or whether they result from a work force that is inherently unstable. Emphasis on the latter leads to solutions focusing on changing work habits and upgrading worker skills while adherence to the former points toward restructuring opportunities.[3]

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[1] Levitan, Mangum, and Marshall, 222; and Louis A. Ferman, The Irregular Economy: Informal Work Patterns in the Urban Ghetto (Ann Arbor: Institute of Industrial Relations, 1969 ca) (mimeographed).

[2] Doeringer and Piore, 189-90. [3] Bluestone, Tripartite, 22.

The concept of a dual labor market is particularly important for youth, since it is during the few years following the end of high school enrollment that they have access to the preferential internal market. Thus, the process through which the social and economic systems channels youths into the internal or external sector and the extent to which youth can influence this process is critical to successful transition.

In addition to structural features of the labor market, a number of other forces influence the employment opportunities available to youth and their ability to realize them. A few of the most important include the nature of supply and demand, governmental restrictions, employer discrimination, credentialism, career guidance, and job information and geographic immobility are reviewed below.[1]

The composition of the labor force, particularly the relative size of various age-sex cohorts and the employment pattern of youth enrolled in school, appears to have a rather significant effect on job opportunities. The enormous bulge in the late 1960's and early 1970's in the youth segment of the labor force--caused by accelerated birth rates after the Second World War--and the employment problems it generated are well-known.[2] Demand side factors are also critical, especially those relating to the number and type of jobs available to both adults and youth, the skills and experience required to fill jobs and the types of workers competing for positions. The presence of a dual labor market has limited the benefits youth derived from programs and policies aimed at general economic stimulation, since the employment opportunities generated were not evenly distributed among various groups in the labor force. Youth and members of minority groups were usually the last to benefit and the first to suffer from economic expansions and contractions.

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[1] Adrian Sinfield, Shortcomings in the Functioning of the Labour Market (Paris: Organization for Economic Cooperation and Development, 1970), pp. 3-9.

[2] Edward Kalachek, The Youth Labor Market (Ann Arbor: The Institute of Labor and Industrial Relations, 1969), pp. 1-8.

Various laws and administrative regulations also tend to constrict the operation of the youth labor market and place restraints on the types of jobs, number of hours, amount of overtime which youth of certain age and sex may work, and the wages they may be paid. Minimum wage laws are perhaps the most controversial of the restrictions facing youth, although the facts are far from clear and the effects confounded by other forces.[1] The most unequivocal conclusion that can be drawn from the literature is that minimum wages probably reinforce the tendency of employers to give preference to adults over youth.

Other barriers to the entrance of youth into some jobs are employer discrimination against all or certain types of youth and the use of hiring and recruitment standards that are not justified by the nature of the job.[2] Ferman states that "credentialism frequently functions . . . to restrict labor choice in the surplus market or to perpetuate patterns of labor choice that are discriminatory to minority group members."[1] The stress that employers place on prior work experience increases the importance of the methods youth use to find first jobs. Since they generally possess very limited knowledge about employment opportunities, youth are particularly dependent upon family, friends or other institutions for information and career guidance, particularly when "social segregation and discrimination in the labor market are likely to occur together."[2] The final factor which will be mentioned is geographic barriers faced by youth. The hazards of long distance search for adults are well known.[3] These problems are multiplied for youth entering the labor market for the first time due to lack of information and vague occupational goals.

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[1] Youth and Minimum Wages, Bulletin 1657 (Washington: Bureau of Labor Statistics, 1970); and Jacob J. Kaufman and Terry G. Furnan, "Minimum Wages and Poverty," Towards Freedom from Want, in Sar A. Levitan, Wilbur J. Cohen, and Robert Lampman, eds. (Madison: Industrial Relations Research Association, 1968), pp. 189-218.

[2] Sinfield, Shortcomings, 7.

Labor Market Information

A second issue which bears on the analysis of job search is the extent to which labor market information is perfect, free, and homogeneous. Workers' knowledge of the labor market is generally thought to consist of information about the number and types of jobs available, the sources of information on job vacancies, the level of unemployment in various job categories, and the opportunity for mobility.[1]

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[1] Louis A. Ferman, "The Hard-Core Unemployed: Myth and Reality," Poverty and Human Resources Abstracts, 4 (November-December, 1969), pp. 5-6.

[2] Sinfield, Shortcomings, 11.

[3] Robert A. Jennes, "Manpower Mobility Programs," in Cost-Benefit Analysis of Manpower Policies, Proceedings of North American Conference, Centre for Studies in Vocational and Technical Education, the University of Wisconsin-Madison and the Industrial Relations Centre Queens University, Kingston, Ontario (Washington: U. S. Department of Labor and Canadian Department of Manpower and Immigration, 1969), pp. 184-220; and Lowell E. Galloway, Interindustry Labor Mobility in the United States, 1957-60 (Washington: Social Security Administration, 1967).

Review of the literature on labor market information indicates that workers possess less knowledge than competitive theory would predict. Some of the specific findings are:

1. manual workers know very little about firms other than the ones that employ them. Knowledge of the going wage for those similarly skilled is particularly limited;
2. those entering the labor force for the first time usually accept the first job that becomes available;
3. friends and relatives are the major sources of labor market information, and much of it is of questionable value;
4. workers are afraid to change jobs given their limited knowledge of other employment opportunities;
5. unemployed workers frequently accept the first job offered rather than conduct a more extensive search.[2]

It is evident from the above that the model of free and perfect labor market information does not fit reality. The major effort to build a theory of information that is in keeping both with competitive theories and the real world, especially the heavy reliance of both workers and employers on informal rather than formal sources of information, was by George Stigler in the early 1960's. His reformulation was based on several observations. The first is the difficulty faced by most workers, except for those who are obsessively specialized, in obtaining data on all wage offers. He states that "no worker . . . will ever be able to become informed on the prospective earnings which would be obtained from every . . . employer at a given time, let alone keep his information up to date."[1] Second, the acquisition of information by the workers is not costless. Both time and money are necessary to build up a stock of information about alternative opportunities. These observations provide the rationale for dropping the assumption of free and perfect information and support the treatment of knowledge as capital possessed by the individual which "is produced at the cost of search and its yield is the higher (than the average in its absence) real wage which is received."[2] As capital, information can be viewed as an investment "produced in the expectation that future productivity will be increased."[3] Information is thus treated as a commodity which can be supplied and demanded. The amount of information present in a communication is, however, independent of its value, since knowledge is both person and time specific. That is, it has value only when used and becomes obsolete, a fact that has important implications for search.[1]

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[1] J. C. Dalal, "Factors Affecting Unemployment and Job Search: Review of the Literature," Social Science Research Institute Workshop Series (Madison: University of Wisconsin, 1969), p. 10.

[2] Levitan, Mangum, and Marshall, 201.

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[1] George J. Stigler, "Information in the Labor Market," Journal of Political Economy, Supplement, 70 (October, 1962), p. 94.

[2] Labor-Market Information Systems for the Disadvantaged Worker: An Interim Report (Industrial Relations Section, Massachusetts Institute of Technology, 1972, ca.), p. 4.

[3] David W. Stevens, Supplemental Labor Market Information as a Means to Increase the Effectiveness of Job Search Activity (University Park: Institute for Research in Human Resources, 1968), p. 15.

The Process of Job Search

Search is a process in which a buyer (seller) canvasses various sellers (buyers) for the most favorable price. It is predicated upon the assumption that the asking price for a commodity is not uniform. Stigler notes

> . . . even with strict homogeneity of commodities, we will usually find some dispersion in the prices which are offered by sellers or buyers. Only if buyers have complete knowledge of all sellers' offers, or all sellers have complete knowledge of all buyers' offers, will there be a single price.[2]

Dispersion of prices is accentuated by the tendency for knowledge to become obsolete and the resulting need for new search in order to update information. The extent to which prices vary is in part a function of the level of ignorance of those in the market, although qualitative differences in similar commodities do affect the relationship. Asking prices generally tend to be skewed, for sellers usually have a minimum (but no maximum) price below which they will not charge.[3]

If there is a moderate dispersion of prices relative to the cost of search, it is advantageous for the buyer to approach more than one seller. The critical point in the search process occurs when "the expected utility to be derived from additional search is at least as great as the utility to be derived from not searching again."[1] If (in this context) utility is measured by income remaining after a commodity is purchased, the commodity itself and the amount of leisure which had to be expended in the search process, then the decision of the buyer regarding continuation or noncontinuation of search depends on: (1) whether the buyer's lowest sampled price is lower, and (2) how much the buyer values leisure, since he must give up leisure to conduct additional search.[2]

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[1] Stigler, Journal of Political Economy (October, 1962), 97.

[2] George J. Stigler, "The Economics of Information," Journal of Political Economy, 69 (June, 1961), p. 218.

[3] Ibid., 215.

The same principles that govern the buying and selling of commodities can be used to explain certain facets of labor market activity, although it often seems somewhat callous to treat labor as a commodity which can be bought and sold. Such a position is reminiscent of Alfred Marshall's reference to bricks, sewers, and laborers. Nevertheless, such an approach does offer a structured framework through which labor market behavior can be conceptualized.

If labor market information were perfectly distributed and cost nothing to obtain, a worker could be assured of obtaining the "best" possible employment given his particular skill level. In the absence of such information, many workers will hesitate before accepting the first offer they receive, since they have no way of determining if it is the best job they can find and would rather remain unemployed than accept an offer below their minimum or reservation wage.[1] Neither can a worker search forever, since the acquisition of information about the labor market is not without its costs, and the middle ground between the acceptance of the first offer and infinite search is a major focus in the analysis of job search. Examination of the literature on job search led to the identification of several major factors which influence the manner in which search is conducted. These include the costs and benefits of search, variation in the quality of labor and discrimination.

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[1] Robert T. Masson, "Costs of Search and Racial Discrimination," Western Economics Journal, 11 (June, 1973), p. 172.

[2] Ibid.

Costs and Benefits of Search

The duration of search is determined in part by the costs and benefits incurred. Benefits derived from additional search can be measured by the receipt of higher wage offers. The probability that additional search will yield a better offer than previously received declines the more the search continues, since the searches will more than likely exhaust the limited amount of "good" offers available to him. The largest cost of search is time, measured by the value of wages that would otherwise have been earned if an offer had been accepted. Cost is proportional to the number of firms or persons contacted, the extent to which prospective employers can readily be identified (which is a factor of employee specialization) and the probability that a given employer is hiring.[1] Search costs are not stable over time, but increase because the searcher is forced to extend his search beyond the local labor market where rather inexpensive search strategies can be undertaken. There are psychological costs inherent in unemployment which also mitigate against endless search.[2] Another hard-to-measure cost of search is the chance that another worker will take a job if the position varies with the extent of employment in the local labor market or occupation. If unemployment is extremely high, a searcher may decide to accept the first position offered.[3]

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[1] Charles W. Baird, Macro Economics: Integration of Monetary, Search and Income Theories (Chicago: Science Research Associates, 1973), p. 48.

The way that costs and benefits interact to determine optimum search is shown in Figure 4. It indicates that "optimal (search) would be achieved when the additional benefits from one more day (or hour) of search are just offset by the additional search costs."[4] This will occur at time t1. An alternate expression of this concept is in terms of the intersection of marginal benefit and marginal cost curves as shown in Figure 5. At any point less than t* the cost of an additional search is less than the expected gain. Stigler states that "a worker

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[1] Stigler, Journal of Political Economy Supplement (October, 1962), 101.

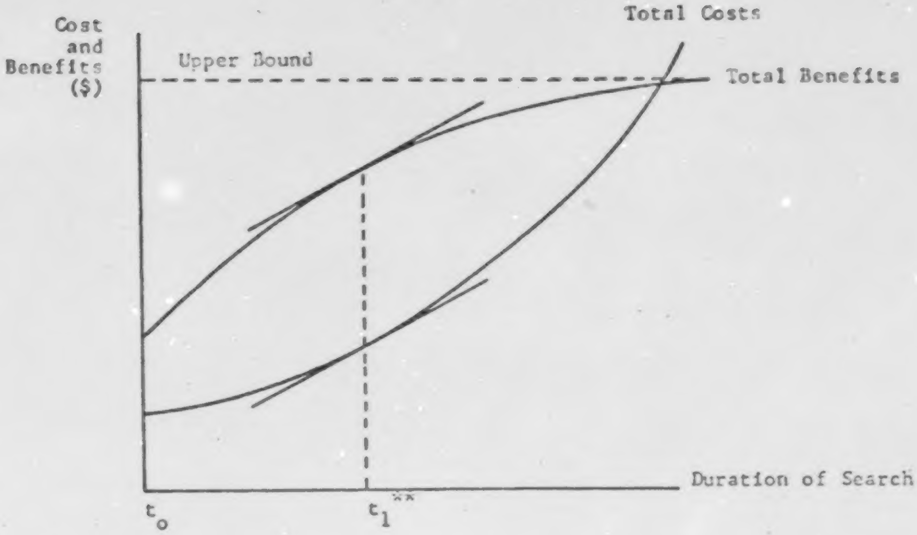
[2] Jerry L. Kingston and Paul L. Burgess, "The Economics of Job Search and Unemployment Insurance," Arizona Business Bulletin (December, 1970), pp. 3-4.

[3] Albert Rees, The Economics of Work and Pay(Chicago: Harper and Row, 1973), p. 97.

[4] Kingston and Burgess, 6.

Figure 4

Optimum Search*

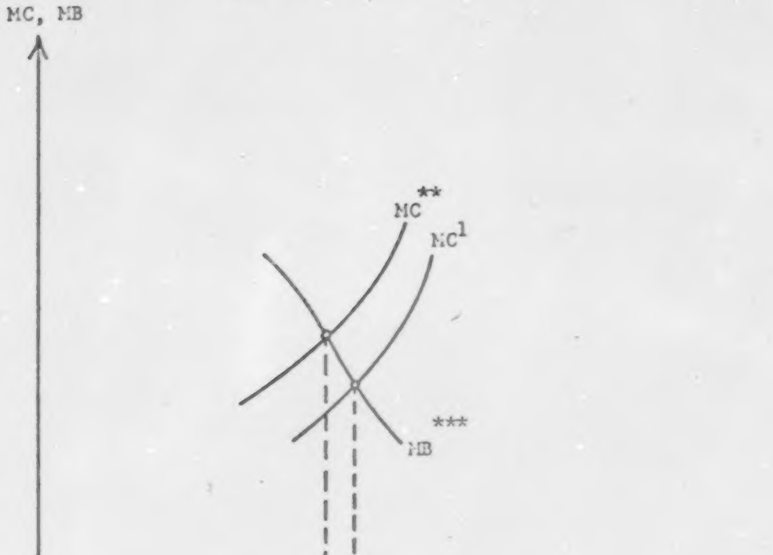


*Kingston and Burgess, 6.

**Optimal Duration Search.

Figure 5

Optimal Duration of Search*



*Baird, 47.

**MC=Marginal Cost

***MB=Marginal Benefit

will search for wage offers (and employers will search for wage demands) until the expected marginal return equals the marginal cost of search."[1] Lowering the cost of search through such external means as unemployment benefits or direct subsidization of search will increase the optimal time for search. Alternatively, decreases in information costs will cause a reduction in the optimal search time.

An important distinction between information costs and search costs should be made at this point. Information costs determine the anticipated benefits to be derived from search while search costs are incurred only when a decision is made to search.[2] If information is readily available--cheap--then it stands to reason that most persons will be knowledgeable about job opportunities and that search will not be very productive, since it will produce little additional information. If job information were to flood the market, the marginal benefit curve in Figure 5 would shift to the left and the optimal duration for search would decline. Conversely, if information were hard to locate--expensive--workers would possess less and would receive a relatively high return from search, since the chance of learning something not already known would be high.

An additional factor which bears on the benefits derived from search is the extent to which "purchases" are repetitive in nature and if so, the degree to which successful offers or purchases are correlated. If strong positive correlation exists, as tends to be the case in the labor market, it pays the worker to search more extensively during the initial search, since any extra gain made then will have future benefits. Stigler contends that extensive search will lead to greater homogeneity in wage rates as evidenced by greater dispersion of wages among older as opposed to young workers, although he is quick to point out that differences in quality may confound the relation between information and wages.[1]

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[1] Stigler, Journal of Political Economy Supplement (October, 1962), 96.

[2] Baird, 48. [3] Ibid., 49.

The reason a worker begins looking is that he "expects to receive a return from searching because the investment is expected to alter his awareness of the demand for his services."[2] Once a decision to search is made, the worker must determine which sources he will use--friends and relatives, employment services, school, etc.--and in what mix. Factors influencing the expected receipt of information from a particular institutional intermediary include the amount of knowledge already possessed by the searcher, and the extent to which the skills possessed by the searcher are in demand in the market place. Once a source(s) is (are) chosen another choice must be made: whether to utilize the information obtained. Here the options are to ignore information on a potential job opportunity, responding but not accepting an offer or respond and accept.[3] The limited use of an institutional source of labor market information, such as the public employment service, is partly explained by the low expected return to the worker of information emanating from this source. Earlier discussion has indicated that greater use of specific sources of information could be stimulated through reducing the cost of use (both in time and money) or increasing the payoff.[1]

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[1] Stigler, Journal of Political Economy (October, 1962), 98.

[2] Stevens, Supplemental Labor Market, 22.

[3] Ibid., 21.

Since labor market information is valuable only after acquisition--there being no guarantee that the initial investment will have any value--the use of a "price" to allocate information can lead to faulty or nonoptimal search. Another way of stating this is that labor market information has expected versus realized value--the latter depending on the content of the information which is unknown to the purchaser. Both employers and workers are thus forced to make employment decisions which are not necessarily based on optimal criteria. Under these circumstances personal experience--their own or others about whose experience they are familiar--becomes an important guide in deciding how to invest in search. As the search process continues, both workers and employers will adjust their standards until a worker or job is found. Time may force both to alter wage expectations. In addition, employers may have to lower entrance standards and workers may need to alter non-wage or occupational requirements. "The search process thus produces an accommodation between the originally incompatible aspirations of workers and requirements of employers, both of which are modified through time to become more realistic."[1]

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[1] Stevens, Supplemental Labor Market, 25.

[2] Ibid., 20.

Rees notes that the extent to which a commodity is standardized determines whether search is conducted at what he refers to as the extensive or intensive margin. When a buyer seeks more comprehensive information about an offer already received, he is searching at the so-called intensive margin. This approach is preferred when commodities (e.g. labor) show considerable variation--are nonhomogeneous in nature. Rees states that "the less alike alternatives are, the greater the expected return from investment in intensive information acquisition."[2] When commodities are highly standardized, this strategy will be less effective. Under this circumstance, it is better to obtain a price quotation from more sellers, which is search at the extensive margin.[3] Rees uses the new and used car market to illustrate this phenomenon. New cars probably vary relatively little in quality--claims of car manufacturers notwithstanding--so that prospective buyers will tend to shop around, searching at the extensive margin. The reverse is true of used cars. Here quality is uneven and it behooves the buyer to obtain detailed information on a few cars through search at the intensive margin to avoid being stuck with a "lemon".[4]

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[1] Rees, Economics of Work and Pay, 98.

[2] Albert Rees, "Information Networks in Labor Networks," The American Economic Review, 56 (May, 1966), p. 561.

[3] Stevens, Supplemental Labor Market, 22; Rees, "Information Networks," 560; and Kingston and Burgess, 6.

[4] Rees, "Information Networks," 560.

The distinction between intensive and extensive search helps explain the known preference of both employers and workers for informal channels of labor market information. If one accepts the rather obvious observation that workers possess different amounts of skill, it follows that employer will exercise care in hiring. Existing seniority arrangements make it doubly important for employers to obtain the best possible worker for a position, since the consequences of their choices may be with them for many years to come. In this situation the employer is less interested in obtaining a wide field of prospective employees than in narrowing his choice down to what the Marines call a few good men and choosing among them. Locating a few potential workers at the lowest possible cost is best accomplished through relying on existing employees. Current employees will tend to refer persons similar to themselves and will be selective in making referrals to protect their own reputation and to have friends working with him. Information distributed through such informal channels may also be more accurate than that obtained through formal sources.

If the employer is satisfied with his existing work force, informal channels become a mechanism to maintain continuity and stability. Internal referrals will also provide workers living in the area surrounding the firm which may reduce absenteeism, lateness, and turnover.[1] In addition to providing relatively high quality workers, informal channels reduce employer's hiring costs, since the employee can screen more cheaply. Stigler suggests that because of this fact "wage rates and skilled search are substitutes for the employer. The more efficiently he (employer) detects workers of superior quality, the less he need pay for such quality."[1] This occurs because information has capital value for the employer.

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[1] Labor Market Information, 3; and Rees, "Information Networks," 561-62.

> The larger the amount of search by workers, the less will be the opportunity (or greater the cost) for the employer to achieve a given saving in wage rates. The division of the investment in information between employers and workers will be determined by institutional characteristics of the market: where it is more economical for one party to acquire the information, the other party will make relatively small investments.[2]

Low-wage industries will thus have to engage in an inordinate amount of search to fill existing openings; high-wage industries the reverse. Although firms choose high wage-limited search or low wage-high search strategies, this does not necessarily mean that individual workers will be hired through a high or low-wage strategy.[3]

A third factor influencing search is discrimination. There is ample evidence that minorities frequently pay higher than average prices for a variety of consumer goods than do other purchasers.[4]

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[1] Stigler, Journal of Political Economy, 70 (October, 1972), 102.

[2] Ibid., 104.

[3] Albert Rees and George P. Schultz, Workers and Wages in an Urban Labor Market (Chicago: University of Chicago Press, 1970), pp. 208-09.

[4] David Caplovitz, The Poor Pay More (New York: Free Press, 1967); and F. D. Sturdivant and W. T. Wilhem, "Poverty, Minorities, and Consumer Exploitation," in F. D. Sturdivant, ed., The 'Ghetto' Market Place (New York: Free Press, 1969), pp. 107-18.

Masson argues that price discrimination by a small number of sellers influences the prices charged by all sellers to a specific minority, decreasing the likelihood that a particular price quote will be rejected in favor of additional search. He states that "the existence of some prejudiced sellers acts as a catalyst creating a system of feedback effects raising all sellers' quotes to blacks above that quoted to whites."[1] This means that because minorities will be less likely to find price quotes below a fixed level and are less likely to expect the next sampled price to be lower than a given level, they will therefore have a higher acceptance price.[2] Higher acceptance prices mean that a searcher experiencing discrimination will more likely find a given price quote acceptable and will be less inclined to conduct additional search than someone not facing discrimination. "Given any previous lowest price quote, a white finds it more likely that one more search will yield a lower quote."[3] As a result, the demand curve of the group being discriminated against becomes more "inelastic" than would otherwise be the case inviting the imposition of continuance of differential prices. The original bigoted price has now led to a faulty perception of the price distribution which in turn constricted search thereby reinforcing the initial price differential. This argument can easily be applied to the labor market where discrimination against minorities--blacks, youth, women--are clearly present. A final point needs to be made with regard to the analogy between the search for commodities and for jobs. In the former, searchers can theoretically canvass several sellers for the lowest quote and then return to purchase a commodity from the seller with the "best" price. This option is not always available to many engaged in search in the labor market, as was originally pointed out by Reynolds, since employment offers are frequently time specific: they must be accepted or rejected immediately after being offered. In terms of the discrimination model of Masson's, "the seller is attempting to lower the buyer's assessment of the expected value of another search."[1] This feature, which is relatively common in the labor market, expecially among the less skilled, hinders acquisition of information about wage distributions and lowers the number of searches that will be undertaken.

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[1] Masson, 175. [2] Ibid., 172. [3] Ibid., 174.

In the preceding section two major assumptions of competitive economic theory dealing with the structure of the labor market and the nature of information have been reviewed and modifications suggested to make these assumptions better fit reality. The problem of discrimination was also introduced. When taken together these provide insight into problems faced by certain marginal groups that are not functionally integrated into the mainstream economy. Workers in such groups have a choice between informal sources, particularly friends and relatives, or use of such formal institutional intermediaries as schools or public employment services. Unfortunately, both informal and formal channels do not function satisfactorily for this group. The first frequently fails because of the quality of jobs held by other group members. If a worker's friends have poor jobs all they can refer him to is poor jobs. The concept of occupational chains found in sociological theories of chain migration has often been used to explain this phenomenon.[1] Chain migration deals with the importance of primary social relations in directing and supporting migratory patterns. The "chain occupation" component consists of "particular niches in the American employment structure to which successful immigrants directed their fellows on the basis of their own experience."[2] The second alternative open to a marginal worker fails because of the apparent inability or unwillingness of certain institutional intermediaries such as the public employment service to receive or obtain information on job opportunities within the "core" economy. Because they receive primarily blue collar and unskilled workers in the secondary sector, some of these intermediaries act to reinforce barriers faced by marginal workers. The public employment service is probably the most accessible instrument for redirecting certain types of workers, but it has suffered from its association with unemployment compensation--employers feel it is more concerned with placing U. C. recipients than meeting their needs--and the difficulty of matching a large number of disparate openings with an equally large number of scattered applicants.[1] What is not entirely clear is the differential effectiveness of these labor market intermediaries in directing marginal workers into the primary labor market under varying circumstances and the type and quality of jobs that result.[2] Perhaps further research can shed some light on this problem.

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[1] Masson 177.

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[1] J. MacDonald and L. MacDonald, "Chain Migration, Ethnic Neighborhood Formation and Social Networks," Milbank Memorial Fund Quarterly, 42 (January, 1964), p. 82.

[2] Ibid., 90.

Labor economists have historically seen the matching of jobs and workers as best being accomplished through formal institutional intermediaries, particularly the public employment service, since informal channels were presumed inherently inefficient. According to the prevailing wisdom, the employment service should serve the labor market in much the same manner that a commodity or securities exchange serves the grain or stock market. There is little doubt that reliance on such analogies were, in Rees' words, "mischievous and misleading," since informal sources are not necessarily random.[3] It is hoped that the reawakening interest in informal channels will not lead to a loss of interest in the use of the public employment service as one means to redress a variety of labor market inequities.

Reubens notes that there is still considerable sentiment for expanding public placement activities, especially in Western European countries, and outlines some of the presumed advantages of public placements. She notes a preference for an increasing proportion of placements of youth and other groups through formal channels, based on the assumption that compared both with costs and the effectiveness of alternative placement channels, superior benefits are realized from public placements by the young worker, the employer, the government and the economy.[1] From the employer's perspective such placements are thought to reduce recruiting costs, permit a closer match between jobs and workers and limit turnover. Better allocation means wage rates and labor skills will more closely approximate the productivity of labor, allowing employers to better relate resource productivity to resource prices. There is also a social return for society from a public investment in labor market information through a reliance on public placements. A better match between jobs and workers acts to reduce the average duration of unemployment, which in turn reduces the loss of income and social tensions often associated with unemployment. Additional social benefits such as higher production, a better occupational, industrial and geographical distribution of young workers, more occupational mobility, and better implementation of manpower policy can also be identified.

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[1] Rees, Economics of Work and Pay, 98.

[2] Stevens, Supplemental Labor Market, 30.

[3] Rees, "Information Networks," 560.

The most significant benefits of public placements would accrue to youth themselves. Reubens lists a number of advantages for this group and reviews evidence from a number of countries to determine if, in fact, they do occur. These potential benefits are classified under four main rubrics--greater job satisfaction, wider job choice (both occupationally and with regard to size of firms), better placement of socially or educationally disadvantaged youth, and lower unemployment rates.[1] The last heading, which is discussed at some length, is further divided into lowering entrance unemployment, shortening the length of unemployment during the first few years of work and reducing the tendency of youth toward high rates of voluntary and involuntary turnover.

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[1] Beatrice G. Reubens, Bridges to Work: International Comparisons, Chapter on Placement, forthcoming.

After a thoughtful and wideranging review of research findings from a number of countries, Reubens concludes that there is no clear evidence of the superiority of public placements over their more formal counterparts. In fact, she notes "private" placements were frequently found superior. The conclusions must, however, be viewed with a certain amount of caution due to the paucity of hard data and the absence of controlled designs.[2]

Job Seeking Methods

Unemployed and employed workers utilize a wide variety of techniques in their quest for employment. While the literature identifies numerous types (shown in Figure 6), the list is limited only by the ingenuity of those who search.[3] Job-seeking methods are usually subdivided into formal channels, where the searcher uses an

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[1] Reubens, Bridges to Work. [2] Ibid.

[3] Eaton Conant, "An Evaluation of Private Employment Agencies as Sources of Job Vacancy Data," in The Measurement and Interpretation of Job Vacancies (New York: The National Bureau of Economic Research, 1966), pp. 543-44.

Figure 6

Various Search Methods

- Employee referral
- Union
- Placed newspaper ad
- Answered newspaper ad
- State employment service
- Public welfare agency
- Churches
- Community action agency
- Civil rights group
- Street corners
- Professional Association
- Public schools
- Vocational schools
- Other educational institutions
- Direct application
- Notices at plant gates
- Friends and relatives including other employees
- Trade journals
- Manpower agencies such as MDTA

institutional intermediary to locate a job opportunity, and informal mechanisms, where the individual takes initiative and contacts another party who may be aware of or possesses a job. The most prevalent formal methods include public and private employment services, schools, newspapers and unions. Informal methods primarily consist of friends, relatives and direct applications to firms. Direct applications may involve checking notices at plants or submitting applications at a company employment office. The so-called informal methods are not necessarily random efforts and "may involve, in fact, highly structured and logical job search strategy, but because of their apparently hit-and-miss character, they are often criticized as being wasteful and inefficient."[1] The methods which will be examined in this study include public employment services, school referrals, direct application, newspaper ads and friends and relatives. In addition, there is an "other" category which covers a number of infrequently used methods and combinations of channels.

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[1] Graham L. Reid, "Job Search and the Effectiveness of Job-finding Methods," Industrial and Labor Relations Review, 25 (June, 1972), p. 479.

Studies of job-seeking behavior may be divided into three levels--patterns of search, effectiveness, and efficiency--depending on the range of information available. Research on the most basic level, the number and type of methods used, is usually collected in one of two contexts: how workers sought or looked for jobs and how they actually found them. Use of multiple methods are more prevalent in the former, single techniques in the latter, because of the nature of the process and selective recall on the part of the seeker. Examination of patterns of job seeking has only limited utility in labor market research, since interest centers more on the consequences and success (effectiveness) of the search than on the fact that a particular method was used. To date, most research on job seeking has concentrated on simply identifying the methods used by certain types of workers.

The next level of sophistication involves examination of effectiveness or penetration rate which measures the success with which various techniques were employed. Several definitions of effectiveness have been proposed. Sheppard and Belitsky define effectiveness as the ratio of all those who claimed to use a particular search technique to all those who cited this specific source as the basis for their present employment.[1] Perfect effectiveness would theoretically yield a value of 1.0. This is similar to what Reid calls the "penetration rate": "the number of workers obtaining . . . jobs through a particular method as a percentage of the number using that method."[1] A variant on this is used by Hilaski in his analysis of the Urban Employment Survey, where effectiveness is seen as the "proportion of all job seekers finding jobs through each method divided by the number who used that method more than any other."[2] Stevens tries to include a measure of intensity when he defines effectiveness as the source used to find a job divided by "the number of occurrences of use of the source, where occurrence of use requires personal contact with an establishment of potential employment."[3] Examples of these various measures are shown in Tables 6 through 13.

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[1] Harold L. Sheppard and A. Harvey Belitsky, The Job Hunt: Job Seeking Behavior of Unemployed Workers in a Local Economy (Baltimore: John Hopkins Press, 1966), p. 93.

Another way to approach this issue of effectiveness is to examine the type and quality of jobs found through various seeking methods.

On the most rigorous level, analysis of job seeking techniques would involve investigation of efficiency. According to Reid,

> . . . one would wish to study the . . . efficiency of job search, so that one could assess the return to the searcher on time and money spent in looking for work and the overall effectiveness of particular methods in achieving the reallocation of the labor force.[4]

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[1] Reid, 484.

[2] Harvey Hilaski, "How Poverty-Area Residents Look for Work," Monthly Labor Review, 74 (March, 1971), pp. 41-45.

[3] Stevens, Supplemental Labor Market, 94.

[4] Reid, 485.

Table 6

Job Seeking Techniques of Various Types of Ghetto Residents in New York City*

Method Used to Look for Work	Distribution of Methods Age 16-24	 25+	Percent Using Men Only Age 16-24	 25+
Formal				
State Employment Service	14	17	40	57
Newspapers	19	19	60	57
Private Employment Agency	6	8	16	30
Community Organizations	10	5	33	13
Informal				
Direct Application to Employer	24	22	70	72
Friends and Relatives	25	20	69	67
Other	5	9		
	100%	100%		

*The Job Search Techniques of Ghetto Workers (New York: Bureau of Labor Statistics, Middle Atlantic Regional Office, Department of Labor, 1971), pp. 17, 19.

Table 7

Methods Ghetto Residents in New York City Used to Find Work*

Method Used to Find Work	Distribution of Methods		Effectiveness (Used/Found)
	All	16-19	
Formal	35	25	18
State Employment Service	12	6	19
Newspapers	7	3	9
Private Employment Agency	7	4	19
Community Organizations	5	12	25
Union Register	4	-	3
Informal	49	54	31
Employer	27	30	32
Friends and Relatives	22	20	
Other	15	20	
	100%	100%	

Proportion Jobseekers (Male) Finding Jobs through Informal and Formal Means

	Formal	Informal
Men 16-24	16	34
Men 25+	20	28

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*The Job Search Techniques of Ghetto Workers (New York: Bureau of Labor Statistics, Middle Atlantic Regional Office, Department of Labor, 1971), pp. 17, 19.

Table 8

Jobseekers who found jobs using each method, as a percent of those who used the method most*

Jobseeking methods	All areas	Atlanta	Chicago	Detroit	Houston	Los Angeles	New York
Employment service	51	55	52	44	51	57	53
Employers	82	84	75	80	93	60	95
Relatives	155	210	149	159	173	172	125
Newspapers	34	27	32	31	30	44	40
Private agencies	87	103	100	117	75	100	78
Community organizations	74	91	69	82	63	73	84
Other	114	107	123	125	85	113	123

Table 9

Jobseeking methods used by persons in the 6 UES poverty areas, July 1968–June 1969 period*

Jobseeking methods	All areas	Atlanta	Chicago	Detroit	Houston	Los Angeles	New York
Total jobseekers	142,500	14,900	21,700	22,300	22,500	13,000	48,000
Total methods	431,[illegible]00	46,800	64,600	67,100	66,700	41,500	144,400
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Employment service	15.5	14.7	14.2	17.6	13.9	[illegible]	15.4
Employers	25.1	25.2	27.4	26.7	25.6	25.3	23.0
Relatives	21.3	21.7	21.2	18.8	23.1	22.4	21.0
Newspapers	18.5	20.3	18.9	16.1	19.2	16.1	19.2
Private agencies	4.8	3.4	2.6	4.2	4.6	3.1	7.3
Community organizations	7.9	8.3	9.8	8.3	5.5	9.4	7.3
Other	7.0	6.4	5.9	8.2	8.2	6.5	6.7

Table 10

Jobseeking methods used by persons in the poverty and nonpoverty areas of Atlanta and Detroit, July 1968-June 1969 period*

Jobseeking methods	Atlanta		Detroit	
	Poverty area	Nonpoverty area	Poverty area	Nonpoverty area
Total jobseekers	14,900	54,800	22,300	[illegible]
Total methods	46,800	149,800	67,100	[illegible]
Percent	100.0	100.0	100.0	100.0
Employment service	14.7	11.2	17.6	[illegible]
Employers	25.2	30.3	26.7	29.6
Relatives	21.7	21.3	18.8	20.8
Newspapers	20.3	21.6	16.1	19.7
Private agencies	3.4	5.8	4.2	4.3
Community organizations	8.3	3.3	8.3	[illegible]
Other	6.4	6.5	8.2	[illegible]

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*Harvey Hilask , "How Poverty Area Residents Look for Work," Monthly Labor Review, 74 (March, 1971), pp. 41-43.

Table 8

Jobseekers who found jobs using each method, as a percent of those who used the method most*

Jobseeking methods	All areas	Atlanta	Chicago	Detroit	Houston	Los Angeles	New York
Employment service	51	55	52	44	51	57	53
Employers	82	84	75	80	93	60	95
Relatives	[illegible]	210	149	159	173	172	175
Newspapers	[illegible]	27	32	31	30	44	40
Private agencies	[illegible]	[illegible]	100	117	75	100	78
Community organizations	74	91	69	82	63	73	84
Other	114	107	123	125	85	113	123

Table 9

Jobseeking methods used by persons in the 6 UES poverty areas, July 1968-June 1969 period*

Jobseeking methods	All areas	Atlanta	Chicago	Detroit	Houston	Los Angeles	New York
Total jobseekers	142,500	14,900	21,700	22,300	22,500	13,000	48,000
Total methods	431,000	46,800	64,600	67,100	66,700	41,500	144,400
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Employment service	15.5	14.7	14.2	17.6	13.9	17.1	15.4
Employers	25.1	25.2	27.4	26.7	25.6	25.3	23.0
Relatives	21.3	21.7	21.2	18.8	23.1	22.4	21.0
Newspapers	18.5	20.3	18.9	16.1	19.2	16.1	19.2
Private agencies	4.8	3.4	2.6	4.2	4.6	3.1	7.3
Community organizations	7.9	8.3	9.8	8.3	5.5	9.4	7.3
Other	7.0	6.4	5.9	8.2	8.2	6.5	6.7

Table 10

Jobseeking methods used by persons in the poverty and nonpoverty areas of Atlanta and Detroit, July 1968-June 1969 period*

Jobseeking methods	Atlanta		Detroit	
	Poverty area	Nonpoverty area	Poverty area	Nonpoverty area
Total jobseekers	14,900	54,800	22,300	175,400
Total methods	46,800	[illegible]	67,100	485,800
Percent	100.0	[illegible]	100.0	100.0
Employment service	[illegible]	11.2	17.6	13.1
Employers	[illegible]	30.1	26.7	29.6
Relatives	21.7	21.3	18.8	20.8
Newspapers	20.3	21.6	16.1	19.7
Private agencies	3.4	5.8	4.2	4.3
Community organizations	8.3	3.3	8.3	4.6
Other	6.4	6.5	8.2	8.0

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*Harvey Hilaski, "How Poverty Area Residents Look for Work," Monthly Labor Review, 74 (March, 1971), pp. 41-43.

Table 11

Comparative Indices of Job Search Method Effectiveness, by Ident and Ethnic*

	Direct Application Without Prior Knowledge of Openings	Newspaper Advertisements	Friends and Relatives	OBES SUPP LMI	Former Coworkers	OBES Referral	Private Fee Agencies	Union	Totals
EXPERIMENTAL									
White									
(1) Number of contacts	1284	889	338	221	103	14	12	11	2872
(2) Number who got jobs	16	9	12	2	4	7	1	1	52
Effectiveness Index (2) ÷ (1)	.012	.010	.035	.009	.039	.500	.083	.091	.018
Nonwhite									
(1) Number of contacts	608	444	227	174	38	7	-	1	1499
(2) Number who got jobs	9	4	8	1	3	4	-	[illegible]	30
Effectiveness Index (2) ÷ (1)	.015	.009	.035	.006	.079	.571	-	1.000	.020
CONTROL									
White									
(1) Number of contacts	1051	423	252	-	54	13	3	16	1812
(2) Number who got jobs	6	10	10	-	5	5	-	2	38
Effectiveness Index (2) ÷ (1)	.006	.024	.040	-	.093	.385	-	.125	.021
Nonwhite									
(1) Number of contacts	718	271	176	-	49	22	3	2	1241
(2) Number who got jobs	4	3	3	-	1	5	1	1	18
Effectiveness Index (2) ÷ (1)	.005	.011	.017	-	.020	.227	.333	.500	.015

*David Stevens, "Supplemental Labor Market Information as a Means to Increase the Effectiveness of Job Search Activity (Washington: National Technical Information Service, 1968), p. 95.

Table 12

Job Search Methods and Success in Obtaining First Job (Men)*

Job Search Method	Using Method		Obtaining First Job by Using Method	
	Number	Percent	Number	Percent
Friend/relative	232	39.3	196	84.5
Advertisement	334	56.6	122	36.5
Notice at firm	61	10.3	12	19.7
Trade union	66	11.2	12	18.2
Employment service	362	61.4	91	25.1
Casual application	217	36.8	115	53.0
Employment agency	10	1.7	3	30.0
Other	40	6.8	39	97.5
Total	1322		590	

*Reid, 483.

Table 13

Job Search Methods and Success in Obtaining First Job (Women)*

Job Search Method	Using Method		Obtaining First Job by Using Method	
	Number	Percent	Number	Percent
Friend/relative	64	34.6	61	95.3
Advertisement	80	43.2	41	51.3
Notice at firm	16	8.6	7	43.8
Trade union	3	1.6	1	33.3
Employment service	51	27.6	23	45.1
Casual application	52	28.1	38	73.1
Employment agency	12	6.5	5	41.7
Other	10	5.4	9	90.0
Total	288		185	

*Reid, 483.

Such effort requires data on the method used first, which techniques were used in combination, length of time each method was used, number and quality of employers contacted through each, and whether there were variations in intensity.[1]

There are a number of serious deficiencies in the quality of information on job seeking which handicap studies of job search patterns and their effectiveness. These include problems of under-reporting, variations in the way individual techniques are used, the issue of intensity of search and the period of time over which the search was conducted. Studies dealing with job-seeking activities can ask whether a list of specific types of methods were used or they can choose an open-ended format which forces the respondent to recall the techniques employed. Both have liabilities. Prompting can conceivably lead to inflated responses, while open-ended questions, as used in the National Longitudinal Survey, probably result in a certain amount of under-reporting particularly for unsuccessful or briefly used methods. For example, Reid in his study of redundant workers in the Midlands notes that a suspiciously high number of workers using friends and relatives to look for jobs found jobs through that method, which suggests "that workers were much more likely to mention having used this informal method if they obtained a job from it."[2]

In the Urban Employment Survey, respondents were first asked the standard question--"What has ____ been doing in the last four weeks to find work?" Then, after a passage of time they were asked whether specific methods had been used. The results are shown in Table 14, which indicates that "the total number of volunteered responses was consistently less than the total number of acknowledged responses."[1] This was felt to occur partly because some respondents did not fully understand the question and partially because they had forgotten.

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[1] Reid, 484. [2] Ibid.

Table 14

Recall of Job Seeking Methods*

Responses	Total	Employment Service	Employer	Friends or Relatives	Newspaper	Other
Volunteered	85	24	20	18	10	13
Acknowledged	145	24	27	40	34	20

*Pilot and Experimental Programs on Urban Employment Surveys, Report 354 (Washington: Bureau of Labor Statistics, 1969), 42.

The next two difficulties--variation and intensity--affect the direct comparability of the same or different techniques and the extent to which information on various methods provides insight into how the search was conducted. Search methods may entail substantially different sets of actions for various individuals, no small problem given the variation in the types of persons looking and the situations in which search is conducted. Finding a job may well reflect a chain of events of which the specific technique is only a small part. The issue of intensity is of major concern, since implying that a particular technique was used does not differentiate between the number of sources contacted about jobs, the likelihood that sources might possess useful information, the number of jobs applied for or refused and the number of rejections received. Stevens, noting that "both the magnitude of the index and the effectiveness ordering of the sources are affected by the definition adopted" takes issue with Sheppard's and Belitsky's definition of effectiveness since it does not control for the intensity of the job search--of visits to companies, employment services or friends--which he feels are critical.[1] The definition he uses requires that a personal contact be made. Stevens also suggests that asking friends about jobs may be qualitatively different from contacting a number of potential employers, and his point is well taken. Last, there is a lack of information about the length of time in which a particular method had been used.[2] It would be foolhardy to conclude that the technique being used by a person out of work to find a job was not effective, unless it was known whether this method had been used continually. Perhaps the searcher had recently switched to that method because other techniques were not successful. The matter is relatively important given the dispute over whether informal sources lead to long periods of frictional unemployment.[1] In sum, it should be stated that "all the search methods are multifarious, and the knowledge that an employee has used a particular method tells . . . little about search behavior."[2] In addition to the vagueness of the categories, there is little knowledge about the efficiency of job search, the cost and effort expended in looking for work and the return in terms of the quality of job found.[3]

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[1] Pilot and Experimental Programs on Urban Employment Surveys, Report 354 (Washington: Bureau of Labor Statistics, 1969), p. 43.

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[1] David W. Stevens, An Experimental Labor Market Information Program to Encourage the Effectiveness of Job Search Activity (Washington: National Technical Information Service, 1968), pp. 93-94.

[2] Ibid.

Need for More Detailed Analysis

It seems surprising that in an economic system so dependent on a freely functioning labor market that knowledge about how jobs and workers are matched is so rudimentary, but this appears to be the case. One place where lack of data is sorely felt is in the whole area of job search, including such information as description of the search methods used, the effectiveness of each and the social, psychological and economic correlates associated with the use of particular techniques. Some theoretical work on the subject is available, but hard data with which to replicate these theories are hard to find.[4] The absence of empirical analyses results in part from the complexity of the job search itself, the attitudinal and motivational elements that influence it,and the variety of situations under which very diverse groups search for work. In addition, lack of information can be partly attributed to a lack of interest. It was only with growing sensitivity to the plight of the disadvantaged and the realization that many were in fact potential full-time workers or job seekers, that the need for more detailed information on the labor market experiences of marginal groups including job search behavior became apparent. The few studies available stress the importance of job search techniques and suggest that the manner in which marginal workers look for work influences the success of their efforts: the more sophisticated the search the greater the probability of finding employment, particularly during periods when the demand for labor is high, although agreement on this point is not unanimous.[1]

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[1] Manpower Policy in the United Kingdom (Paris: Organization for Economic Cooperation and Development, 1970), p. 163.

[2] Reid, 484.

[3] Ibid., 494.

[4] H. Kasher, "The Asking Price of Labor and the Duration of Unemployment," Review of Economics and Statistics, 13 (May, 1967), pp. 165-72; J. J. McCall, "Economics of Information and Job Search," Quarterly Journal of Economics, 84 (February, 1970), pp. 113-26; D. T. Mortensen, "Job Search, the Duration of Unemployment and the Phillips Curve," American Economic Review, 60 (December, 1970), pp. 247-62; Dalal; and Charles Holt, Job Search, Phillips Curve, Wage Relation and Union Influence (Washington: Urban Institute, 1969).

The above statements are not intended to imply that such barriers as discrimination and insufficient employment opportunities are not important causes of a disadvantaged labor market status, for they are. Rather, they suggest that job search is an important component in the process and that as opportunities for marginal groups are broadened, job search will occupy an even more prominent position both as a means to obtain employment and as a point of contact with agencies which can refer to or provide the additional services--evaluations, counseling and training--that the marginal worker frequently needs.

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[1] Hilaski, 45.

Analysis of job search techniques serves several important functions. It provides clues to the problems faced by selected groups as well as insight into both the services they need and the efficacy of existing ones. This helps explain the interest in the public employment service and the schools in this study. European experiences suggest that these two agencies can play a critical role in maintaining high levels of employment and facilitating the transition of youth from school to work. Unfortunately, they have had little impact on employment levels, transition or job finding for the bulk of the population or marginal workers in the United States.[1] No employment agency can be beneficial to those in need of work unless its services are recognized and used. A number of writers have questioned who the public employment service really serves and whether its "inflexible outmoded bureaucracy" allows it to function as the comprehensive manpower center envisaged by much of the recent work oriented federal legislation.[2] The shortcomings of the public employment service may also apply to the job preparation and job placement functions of high schools as well although only limited data are available on the subject.[3]

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[1] Falling Down on the Job: The United States Employment and the Disadvantaged (Washington: Lawyers Committee for Civil Rights Under Law and the National Urban Coalition, 1971).

[2] Holt, iii; Stanley Ruttenberg and Jocelyn Gutchess, The Federal-State Employment Service, A Critique (Baltimore: Johns Hopkins Press, 1970); and Louis Levine, The Public Employment Service in Social and Economic Policy (Paris: Organization for Economic Cooperation and Development, 1969).

[3] Falling Down, 46.

Evaluations of existing manpower programs are not without their difficulties. Because of ambiguous, even conflicting goals, there is often little or no direct connection between the intent of the programs, as spelled out in its legislative and executive mandate, and the service that is rendered--vocational education and the public employment service being cases in point. The needs and problems of the population to be served frequently differ radically and are not clearly understood. Because knowledge of the labor market experience of particular groups such as youth is limited, programs that serve them are often based more on political exigencies and ideological convictions than on fact. Job search is one of the areas where information would aid decision making. Identifying the accomplishments of manpower programs and relating them to costs and effectiveness is further handicapped by the "failure of administrations to simultaneously design reporting systems capable of producing the data ultimately needed for evaluation" and lack of consensus on goals.[1]

Even well-conceived research efforts are subject to considerable political constraints because of the unwillingness of sponsoring agencies to permit any research that casts doubts on the efficacy of the program. This is suggested by some of the controversy over the Job Corps.[2] Furthermore, the limited success of many manpower programs may not reflect the adequacy of the ideas upon which they are built but rather deficiencies in their implementation.[1] The technical and political constraints associated with the evaluation of existing programs increases the need for such information. As awareness grows of labor market problems faced by youth, especially those who are disadvantaged, it will hopefully lead to more extensive efforts to understand their behavior and the ability of various programs to aid them.

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[1] Mangum, 103.

[2] Ralph L. Beals, Politics of Social Research (Chicago: Aldine, 1969); Harold Orlans, Making Social Research More Useful to Government (Washington: Brookings Institution, 1969); and Levitan and Taggart, Social Experimentation, 20.

Literature on Job Seeking

The literature on job-seeking techniques, while extensive, suffers from a considerable amount of fragmentation. It is made up of studies of methods "by which the unemployed worker intended to find employment or if already employed, how he intended to find a better job (or) the methods by which he actually found a job or a new job."[2] These studies identify both the frequency with which various channels are used and the characteristics of workers relying on particular techniques. Until recently, most focused on displaced white male industrial workers and examined their reactions to unemployment, including the ways they looked for and found new jobs. An outline of job-seeking data from a number of studies of displacement can be found in the appendix. The primary focus of these efforts has been identification of those factors, including job seeking methods, which impede or speed efforts of workers to locate new jobs. Dalal, in a wide ranging review of the area, identifies eight factors which bear on the process. These include availability of jobs and level of economic activity; the access to information on the labor market; worker's age, sex, and race; the worker's skill and education; the worker's financial resources and family responsibilities; the worker's aspirational level; the worker's motivation and occupation and geographic mobility.[1] These factors are not seen as independent but interact in complex unpredictable ways. In a more recent article, Stevens identifies eighteen factors related to the variations in the length of unemployment, which he collapses into four basic rubrics: market factors, incentive factors, qualification factors and wage aspirations. The latter is measured by the relationship of job-seeker's asking wage to his previous earnings rate.[2]

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[1] Levitan and Taggart, Social Experimentation.

[2] Melvin Lurie and Elton Rayack, "Racial Differences in Migration and Job-Search: A Case Study," Southern Economic Journal (July, 1966), p. 93.

Much of the literature concerns how unemployed workers searched for or sought jobs rather than how they found them. There have been some exceptions, such as the study by Lurie and Rayak, who analyzed racial differences in migration and job-seeking. Their findings include a helpful appendix which reviews a number of studies that specifically examined how workers found jobs. A chart from this appendix is shown in Table 15. The major finding of these studies has been the

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[1] Dalal.

[2] David W. Stevens, Assisted Job Search for the Insured Unemployed (Washington: W. E. Upjohn Institute, 1974), p. 32.

Table 15

Summary of Job Search Studies
How Current Job was Found

Authors	Date of Study	Labor Market	Population (000*)	Methods of Job Search (% distribution)								
				"Formal" Search					"Informal" Search			
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
High Unemployment												
1. Wilcock-Franke	1960-62	Columbus, O.	670	4				12	37	32		15
		Oklahoma City, Oklahoma	500	1				3	33	40		20
		E. St. Louis, Illinois	500	3				7	53	22		15
		Peoria, Ill.	290	5				5	43	31		16
		Fargo, N. D.-Moorhead, Minn.	70	9				7	31	35		18
2. Miernyk	1951-53	Lowell, Mass.	100	9		9	2		36	35		9
		Lawrence, Mass.	80	3		7	1		50	35		4
		Fall River, Mass.	100	5		3	1		59	29	1	2
		New Bedford, Mass.	100	3		0	3		39	42	11	2
		Providence, R. I.	800	3		7	3		32	42		13
3. Adams Aronson	1949-50	Auburn, N. Y.	70	2					22	52	12	12
4. Myers-Schultz	1948-49	Nashua, N. H.	50	5		3	3		38	16	33	2
5. Myers-Maclaurin	1937-40	Fitchburg, Mass.	60	1	1	2			39	33	22	2
6. de Schweinitz	1930	Phila., Penna.	2,000		2	3			58	23		14
Expanding or Firm Employment												
7. Wilcock-Sobel	1952	Kankakee, Illinois	100	8		19			46	23	3	1
8. Reynolds-Shister	1947	New Haven, Connecticut	350	13		13	5		28	20	13	8
9. Heneman-Fox-Yoder	1947-48	Minneapolis, Minn.	500	6	5	14	7		30	32		6
Lurie-Rayack	1964	Middletown, Connecticut	35	2	10	3	4		36	45		

* Population at time of study.

Code for Methods of Job Search:
(1) Public Employment Service
(2) Private Employment Service
(3) Newspaper "help wanted" ads
(4) Trade Union
(5) Company assistance in finding new employment
(6) Friends and relatives
(7) Application at plant gate
(8) Recall or recruited by company
(9) Other or unknown

SOURCES

1. Richard C. Wilcock and Walter H. Franke, *Unwanted Workers*, the Free Press of Glencoe, 1963.
2. William H. Miernyk, *Inter-Industry Labor Mobility*, Northeastern University, 1955.
3. Leonard P. Adams and Robert L. Aronson, *Workers and Industrial Change*, Cornell University, 1957.
4. Charles A. Myers and George P. Shultz, *The Dynamics of a Labor Market* (Englewood Cliffs, N.J.: Prentice-Hall, 1951).
5. Charles A. Myers and W. Rupert MacLaurin, *The Movement of Factory Workers* (New York: John Wiley, 1943).
6. Dorothea de Schweinitz, *How Workers Find Jobs*, University of Pennsylvania Press, 1935.
7. Richard C. Wilcock and Irvin Sobel, *Small City Job Markets*, University of Illinois, 1958.
8. Lloyd G. Reynolds and Joseph Shister, *Job Horizons* (New York: Harper, 1949).
9. H. G. Heneman, Harland Fox, and Dale Yoder, *Minnesota Manpower Mobilities* (University of Minnesota, 1950).

*Lurie and Rayack, 94.

consistently heavy use of informal channels; only a small percentage of workers obtained jobs through formal channels, especially the public employment service. He notes that the use of formal methods was found to increase somewhat in tight as opposed to loose labor markets.[1]

While it would be nearly impossible to summarize all the factors associated with the use of particular job seeking and finding patterns identified in the vast panoply of studies, some examples of the findings from a selected number of studies seem in order. In a study conducted in the early 1960's on displaced industrial workers in half a dozen midwestern cities, Wilcox and Franke found that: blacks depended more on informal channels, especially friends and relatives, than did whites; young workers were more likely to find jobs in larger firms; vocational high school graduates were more likely to use school employment services than were nonvocational graduates; white-collar workers made heavier use of formal methods, while blue collar relied more on informal; and private employment agencies were used primarily to find white-collar jobs.[2]

Reynolds examined job seeking habits of manual and manufacturing workers in the late 1940's in New Haven. He found a number of patterns: workers in manufacturing and younger workers made more use of direct application and less of newspapers and unions than did older nonskilled workers; young men whose fathers were in skilled occupations were more likely to use friends and relatives and less likely to use direct application than were young men whose fathers were in manual occupations; and workers tended to apply first to plants in the same industry and close to their homes.[1] In a 1964 study of an industrialized Connecticut town, Lurie and Rayack found that use of direct application and friends-relatives was comparable among blacks and whites; that clerical and skilled workers, both blacks and whites, made higher use of formal channels to find jobs than did blue-collar workers; that twice as many whites proportionately used private agencies than did blacks; that blacks were three times more likely to use public employment services than were whites; that blacks and whites make inverse use of public and private employment agencies; and that newly arrived white migrants depend more on friends-relatives, while blacks were far more likely to use direct application if they migrated from surrounding areas and were more likely to use state employment services than did whites if they migrated from the South.[2]

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[1] Lurie and Rayack, 95.

[2] Richard C. Wilcox and Walter H. Franke, Unwanted Workers (Glencoe: Free Press of Glencoe, 1963), p. 130.

In a study in Chicago in the early 1960's, Rees and Shultz noted that informal methods led to more blue-collar hires while white-collar hires were more often linked to formal channels; private employment services made a much higher percentage of white collar placements than did the public employment service; newspapers were superior to public employment service and private agencies used extensively by low wage industries.[3]

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[1] Lloyd G. Reynolds, The Structure of Labor Markets (New York: Harper & Brothers, 1951), pp. 106-08, 127.

[2] Lurie and Rayack, 90.

[3] Rees and Shultz, 199-217.

One of the more recent analyses of job-seeking methods of unemployed workers by Bradshaw utilized data from the Current Population Survey. Some of his findings were that teenagers used public and private agencies less than other workers; men were more likely to use public employment services than were women; whites relied on private agencies and newspapers more than blacks; and blacks utilized public employment services far more than whites. With respect to occupation, white-collar workers were more likely to use private employment services and newspapers. Except for construction, where there is a heavy reliance on the "other" channel (probably representing union-related hiring) job-seeking methods were relatively similar. Some of these trends are shown in Tables 16 through 19. The studies reviewed above were not meant to be representative, but rather to convey a general impression of the kinds of data on job seeking that are generally available.

Much of the analysis of job seeking, particularly before the 1960's, was focused on a limited segment of the labor force and was not methodologically sophisticated. In the conclusion to a W. E. Upjohn monograph on the Impact of Technological Change, the authors' criticism of existing studies is quite instructive. They comment that "research on job displacement has yielded considerable data on how workers adjust to the loss of jobs and how different labor markets and industries go about absorbing the displaced workers."[1]

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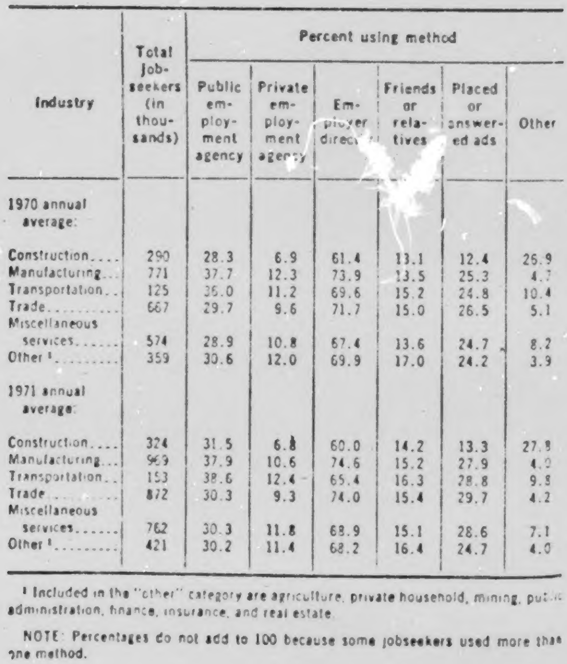
[1] William Haber, Louis Ferman, and James Hudson, The Impact of Technological Change: The American Experience (Washington: W. E. Upjohn Institute, 1963), p. 53.

Table 16

Industry Classification of Jobseekers Using Various Jobsearch Methods, 1970-71*



Industry	Total job-seekers (in thousands)	Percent using method					
		Public employment agency	Private employment agency	Employer directly	Friends or relatives	Placed or answered ads	Other
1970 annual average:							
Construction....	290	28.3	6.9	61.4	13.1	12.4	26.9
Manufacturing...	771	37.7	12.3	73.9	13.5	25.3	4.7
Transportation..	125	35.0	11.2	69.6	15.2	24.8	10.4
Trade..........	667	29.7	9.6	71.7	15.0	26.5	5.1
Miscellaneous services......	574	28.9	10.8	67.4	13.6	24.7	8.2
Other [1].........	359	30.6	12.0	69.9	17.0	24.2	3.9
1971 annual average:							
Construction....	324	31.5	6.8	60.0	14.2	13.3	27.8
Manufacturing...	969	37.9	10.6	74.6	15.2	27.9	4.0
Transportation..	153	38.6	12.4	65.4	16.3	28.8	9.8
Trade..........	872	30.3	9.3	74.0	15.4	29.7	4.2
Miscellaneous services......	762	30.3	11.8	68.9	15.1	28.6	7.1
Other [1].........	421	30.2	11.4	68.2	16.4	24.7	4.0

[1] Included in the "other" category are agriculture, private household, mining, public administration, finance, insurance, and real estate.

NOTE: Percentages do not add to 100 because some jobseekers used more than one method.

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*Thomas F. Bradshaw, "Job Seeking Methods Used by Unemployed Workers," Monthly Labor Review, 96 (February, 1973), p. 38.

Table 17

Age and Sex of Jobseekers Using Various Jobsearch Methods, 1970-71*

Age and sex	Total Jobseekers (in thousands)	Percent using method: Public employment agency	Private employment agency	Employer directly	Friends or relatives	Placed or answered ads	Other	Average number of methods used
1970 annual average								
Total	3,277	30.2	10.1	71.0	14.3	23.4	7.4	1.56
16-19	1,018	21.9	6.6	76.9	13.8	20.1	4.9	1.44
20-24	722	36.6	11.5	72.3	14.0	24.9	4.3	1.64
25-34	529	34.6	12.7	68.8	14.6	25.5	7.8	1.64
35-44	365	33.2	11.2	68.8	14.5	24.9	9.6	1.62
45-54	343	33.2	12.2	67.6	14.6	25.7	10.8	1.64
55 and over	300	28.3	10.0	58.3	15.0	23.0	16.7	1.52
Men, total	1,746	32.9	10.4	72.2	16.3	21.9	9.8	1.63
16-19	547	21.9	5.5	79.5	13.7	18.5	4.6	1.45
20-24	382	39.5	11.5	73.6	16.5	23.3	5.5	1.70
25-34	272	42.3	15.1	69.5	18.4	25.4	11.0	1.81
35-44	172	38.4	13.4	70.3	18.0	24.4	15.1	1.80
45-54	174	36.2	13.2	68.4	17.8	25.3	16.1	1.77
55 and over	199	30.2	9.5	58.8	13.1	19.1	20.6	1.52
Women, total	1,531	27.2	9.8	69.7	12.0	25.1	4.8	1.49
16-19	471	22.1	7.9	74.1	12.1	22.1	5.3	1.44
20-24	339	33.3	11.5	71.1	11.2	26.8	2.9	1.57
25-34	257	26.8	10.1	68.1	10.9	25.7	4.3	1.46
35-44	193	28.5	9.8	67.4	11.4	25.4	4.7	1.47
45-54	169	30.2	10.7	66.9	11.2	26.0	5.3	1.51
55 and over	101	24.8	10.8	56.4	18.8	30.7	9.9	1.50
1971 annual average								
Total	4,117	30.8	9.7	71.6	15.2	25.7	6.7	1.60
16-19	1,171	20.6	5.6	78.1	13.8	20.8	4.4	1.43
20-24	958	36.0	11.7	72.0	14.8	30.0	4.5	1.69
25-34	730	36.7	11.5	71.1	15.8	27.8	6.7	1.70
35-44	466	33.7	11.2	67.6	15.5	27.0	8.6	1.64
45-54	425	34.6	11.5	66.8	16.5	26.1	10.8	1.66
55 and over	368	30.4	10.1	61.4	17.9	24.7	14.9	1.59
Men, total	2,235	34.4	10.2	72.1	17.4	24.3	9.1	1.68
16-19	639	21.4	4.4	80.0	16.1	18.5	4.2	1.44
20-24	534	40.4	9.2	73.0	16.9	28.7	5.4	1.75
25-34	374	43.0	13.6	71.1	18.4	27.5	9.1	1.83
35-44	225	40.9	15.1	67.1	18.7	26.7	14.2	1.83
45-54	227	39.2	14.1	66.1	17.6	25.1	16.7	1.78
55 and over	236	33.9	10.2	61.0	19.1	22.0	18.6	1.63
Women, total	1,882	22.6	9.1	70.9	12.5	27.5	4.3	1.51
16-19	532	19.5	7.0	75.8	11.1	23.3	4.5	1.41
20-24	424	30.4	12.7	70.8	12.3	31.6	3.5	1.61
25-34	355	30.1	9.3	71.3	12.7	28.2	4.2	1.56
34-44	240	27.1	7.9	68.3	12.5	27.1	3.8	1.47
45-54	198	29.3	8.6	67.2	15.6	27.3	4.0	1.52
55 and over	132	28.8	9.1	62.1	15.9	29.5	6.8	1.52

NOTE: Percentages do not add to 100 because some jobseekers used more than one method.

*Bradshaw, 37.

Table 18

Sex and Race of Jobseekers Using Various Jobsearch Methods, 1970-71*

Sex and race	Total jobseekers (in thousands)	Percent using method						Average number of methods used
		Public employment agency	Private employment agency	Employer directly	Friends or relatives	Placed or answered ads	Other	
1970 annual average								
White	2,632	28.5	10.8	71.9	14.3	25.1	7.7	1.58
Male	1,433	31.1	11.0	72.9	16.3	23.7	10.2	1.55
Female	1,198	25.4	10.5	70.8	11.8	26.9	4.7	1.50
Negro and other races	645	37.4	7.1	67.4	14.3	16.4	6.5	1.49
Male	313	41.2	7.3	69.0	16.0	13.7	8.0	1.55
Female	333	33.9	7.2	65.5	12.6	18.9	5.1	1.43
1971 annual average								
White	3,314	28.5	10.3	72.8	15.3	27.1	7.0	1.61
Male	1,838	32.2	10.7	73.3	17.5	25.6	9.2	1.68
Female	1,476	24.0	9.7	72.2	12.5	28.9	4.2	1.52
Negro and other races	804	40.4	7.3	65.5	14.9	20.3	6.3	1.56
Male	397	44.6	7.6	66.8	17.4	18.4	8.3	1.63
Female	406	36.5	7.1	66.5	12.6	22.2	4.4	1.49

NOTE: Percentages do not add to 100 because some jobseekers used more than one method.

*Bradshaw, 39.

Table 19

Occupation of Jobseekers Using Various Jobsearch Methods, 1970-71*

Occupation	Total jobseekers (in thousands)	Percent using method					
		Public employment agency	Private employment agency	Employer directly	Friends or relatives	Placed or answered ads	Other
1970 annual average							
White-collar workers	963	31.8	16.9	67.9	13.9	32.6	5.6
Professional and technical	190	30.5	21.6	69.5	14.2	31.1	9.5
Managers and administrators	98	33.7	21.4	65.3	16.3	39.8	8.2
Sales workers	173	27.7	11.6	72.3	15.0	29.5	5.2
Clerical workers	502	33.3	16.1	66.3	12.9	32.9	4.0
Blue-collar workers	1,264	34.5	7.9	71.4	14.3	18.4	10.[illegible]
Craftsmen and kindred workers	268	31.7	9.7	62.7	14.2	16.4	23.5
Operatives	686	37.0	7.9	74.6	13.8	20.4	6.1
Nonfarm laborers	309	31.4	6.5	72.2	15.5	15.9	10.4
Service and farm workers	559	26.8	6.3	70.5	14.8	21.6	5.9
1971 annual average							
White-collar workers	1,216	31.0	16.6	69.2	15.2	35.0	5.7
Professional and technical	284	28.9	20.1	71.1	15.8	33.8	10.9
Managers and administrators	129	34.1	20.2	73.6	20.2	34.9	7.0
Sales workers	197	27.9	14.2	73.1	16.8	35.0	4.1
Clerical workers	605	32.2	15.0	66.1	13.4	35.7	3.6
Blue-collar workers	1,561	35.6	7.3	71.6	15.2	21.8	9.7
Craftsmen and kindred workers	360	34.2	8.6	64.4	15.3	22.2	20.6
Operatives	819	37.2	7.2	74.6	15.0	24.2	4.6
Nonfarm laborers	381	33.3	6.6	72.2	15.5	16.3	10.0
Service and farm workers	727	30.3	6.6	70.8	15.7	23.5	4.7

NOTE: Percentages do not add to 100 because some jobseekers used more than one method.

*Bradshaw, 39.

Much of the problem with research efforts stemmed from the lack of conceptualization of what constitutes job displacement. This, they feel, is related to the fact that each study tends to be treated as a separate case analysis and is descriptive rather than analytical in nature. They stressed the need for methodological sophistication, especially better ways of handling recall on the part of respondents, and also the need to standardize the length of time workers would be studied, to develop more scales and indices of adjustment to job loss and to achieve more sophisticated design, especially use of control groups.

In the 1960's the scope of research on job seeking was expanded considerably beyond that of job displacement of blue-collar workers. This reflected the growing concern with unemployment problems of marginal workers and coincided with the appearance of literature devoted to the theories of job search. Data summarizing the ways workers in urban poverty areas search for work and the effectiveness of their search efforts are presented in Tables 20 and 21. Most of the information contained emanates from the Urban Employment Survey (UES) sponsored by the Department of Labor between July 1968 and June 1969 in poverty areas of six major cities throughout the United States.[1] The studies demonstrate that nonwhites, especially blacks, made proportionately greater use of formal channels, although informal channels still

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[1] Pilot and Experimental Program on Urban Employment Surveys, Report Number 354 (Washington: Bureau of Labor Statistics, 1969).

Table 20

Job Seekers Who Found Jobs Using Each Method as a Percent of Those Who Used the Method Most*

Method	All Areas	Atlanta	Chicago	Detroit	Houston	Los Angeles	New York
Pub Empl Svc	51	55	52	44	51	57	53
Direct Application	82	84	75	80	93	60	95
Friends-Relatives	155	210	149	159	173	172	125
Newspapers	34	27	32	31	30	44	40
Pvt Empl Svc	87	100	100	117	75	100	78
Community Organization	74	91	69	82	63	73	84
Other	114	107	123	125	85	113	123

*Hilaski, 44.

Table 21

Job Seeking Methods Used by Low Income Workers*

Authors	Date of Study	Labor Market Area	Size Population Studied	Type Population	Context Job Seeking	ES	Pvt	Comm Org	News	Union or Trade Ass'n	Past Empl or Empl Ass'n	School	Pt-Time Work	FR	DA	Other
U.S. Dept. Labor	1968-69	Poverty Areas Six Cities Atlanta Chicago Detroit Houston Los Angeles New York	3,600	Urban Poverty Residents	Use @ Method as % of all Methods	16 15 14 18 14 17 15	5 3 3 4 5 3 7		19 20 19 16 19 16 19					27 22 21 19 23 22 21	25 25 27 27 26 25 23	15 15 16 17 14 16 14
U.S. Dept. Labor North Central Regional Office Report No. 3	1968-69	Detroit Entire City	36,000		Method Used Most	12	2	3	15	1				13	47	9
					Method Used Last Job	6	3	3	7	1				23	44	12
		Detroit CEP Survey Area	3,600		Method Used Most	18	3	5	12	1				10	42	9
					Method Used Last Job	10	4	5	4	1				19	41	15
U.S. Dept. Labor South West Regional Office Report No. 6	1968-69	Houston CEP Area	22,500		Method Used Most	16	4		16	1				18	31	13
		"	"		Method Used Last Job	9	3		6	2				36	33	12
U.S. Dept. Labor Mid Atlantic Regional Office #21		N.Y.C. Poverty Areas	40,600	All	Method Used Last Job	12	7	5	7	4				22	27	15
			25,600	Blacks only	"	16	7	7	7					19	25	16
Kidder	1966	Boston		Blacks	Primary Source Job Info.	9	6		31					--54--		
				Whites		6	3		21					--70--		

*See Bibliography for citations

represent at least half of all the methods used. With respect to individual techniques, blacks "were more likely than whites (most of whom, in the areas surveyed, were Spanish-Americans) to contact the public employment service and community organizations."[1] Use of employment services was age related, with older respondents (over 25) relying more heavily on this channel than did those under 25. Utilization of other formal mechanisms, particularly newspapers and private agencies, was influenced by the ethnic origin of the searchers. With the possible exception of youth under twenty, sex and age had limited influence on the use of various methods. Some variation was noted with respect to occupations where

> . . . white-collar workers were found more likely than blue-collar or service workers to use newspapers, private agencies, and community organizations [than] . . . public employment services . . . White and blue-collar workers tended to check directly with employers for jobs relatively more than service workers.[2]

Comparisons between blacks and whites in the UES is complicated by the presence of several ethnic groups and the relatively small percentage of whites in the surveys. A somewhat better feel for the differences between these two racial groups can be obtained in other studies, particularly one by Alice Kidder in 1966.[3] Using a matched sample of black and white youth from Roxbury and Charlestown in Boston, she collected data on the job finding experiences of both groups. The author theorized that because unskilled workers would face more competition in their quest for jobs, they would have to engage in more expensive and extensive search, and that in the absence of discrimination, equally educated and qualified blacks should have job-finding experiences similar to those of comparable whites. This was not found to be the case, as blacks experienced higher rejection rates and lower wages than did similar whites, confirming the presence of discrimination.

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[1] Hilaski, 43. [2] Ibid.

[3] Alice Kidder, "Interracial Comparison of Labor Market Behavior," Unpublished PhD. Thesis, Massachusetts Institute of Technology, 1967.

Kidder found that blacks not only placed greater stress on formal methods, but received slightly higher wages from formal than from informal channels. The reverse was true for whites. The state employment services, although known to the vast majority of all those surveyed, were used proportionately more by blacks in all occupation groups except professional. For example, nine-tenths of all black craftsmen used public agencies, compared with only one-third of white craftsmen. Similarly, 57 percent of black laborers as compared with only one-third of white laborers used the state employment service. Unlike the results found in the UES, blacks made heavier use of both newspapers and private employment agencies. Blacks generally utilized advertisements in "white" newspapers, and heavy use of this channel may reflect its popularity among low-wage employers. She concludes that if the sources of informal information for blacks are, in fact, other blacks, then this source of information only locks blacks into marginal jobs by disseminating inferior labor market information. Examination of the geographical and occupational components of search indicated that blacks had a greater likelihood of obtaining employment if they restricted their efforts to the area around their homes and looked for traditional black occupations such as janitors. The geographical extensiveness of search patterns was not as important as the type of occupation, and blacks searching in the fringe areas of Boston were most likely to succeed if they limited themselves to traditional black jobs. Whites had a greater chance of finding jobs in nontraditional occupations utilizing what Kidder labels as occupationally non-integrated search.[1]

Attention now turns specifically to youth. Here the interest is to describe the techniques youth utilize to find jobs and the personal characteristics which appear to influence the use or nonuse of a particular channel. The literature on job seeking of youth, while not extensive, is not limited to the United States, and a summary of the results of a number of studies is presented in Table 22. One of the most striking features of these efforts is the exceptionally heavy reliance on informal sources of labor market information, particularly friends-relatives. This reflects the widely held belief by youth that "connections" are needed to find employment.[2] Difficulties experienced by disadvantaged youth in locating jobs may result in part from the lack of access to this type of information. The importance of contacts

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[1] Kidder, 150-59.

[2] Larry Singell, "Some Private and Social Aspects of Labor Mobility of Young Workers," Quarterly Review of Economics and Statistics, 6 (Spring, 1966), pp. 19-27; Michael P. Carter, Home, School and Work: A Study of the Education and Employment of Young People in Britain (New York: Pergamon, 1962), pp. 171-72; and Pilot and Experimental Program, 41.

Table 22

Job Seeking Methods Used by Youth as Reported in Selected Studies*

Author**	Date	Labor Market Area	Size of Population	Special Char.	Context Job-Seeking	ES	Pvt	News	Comm Org	Union	Past Exp	School	Pre-vious	FR	DA	Other
U.S. Dept. Labor	1963	Current Population Survey	--	New entrants both sexes	Found	5	3	4				6		35	41	
Lipset-Bendix	1949-50	Oakland, Calif.	880	New entrants Youth	Found							7		67	16	20
Hall	1961	Ontario, Canada	396	First Job	Found	10						13		29	36	13
Wilmott	1954	East London	278	New entrants	Found	41		12						32		15
Carter	1959	Sheffield, England	200	Youth	Found	31		5						42	18	1
Reynolds	1948	New Haven, Conn.		First job of Younger workers in Manufacturing	Found	23		10					9	31	16	19
		New Haven, Conn.		First job of Older Manual Workers	Found								7	53	29	7
Singell	1963	Detroit	60	H.S. Grad of 1 yr.	Found	10								60	20	10
Perella	1972	Current Population Survey		Recent College Graduates	Found	2	4	4				18		21	41	11
U.S. Dept. Labor Southwest Regional Office	1968-69	Houston Poverty Areas	2700	Male workers 16-19	Found	12	4	19	8	1				24	28	4
			2900	Female workers 16-19	"	15	5	20	7	1				25	22	6
U.S. Dept. Labor Mid-Atlantic Regional Office	1968-69	N.Y.C. Poverty Areas	11,500	Ghetto workers 16-19 both sexes	Found											
Kaufman ,	1965	Nine cities located in the Middle Atlantic Region	2183	male entrants	Found	8		5				14		28	37	7
			2437	female	"	13		5				19		19	35	
Kaufman	1965		1070	male voc.grad.	Found	7		5				23		26	34	5
Kaufman	1965		671	male gen.grad.	"	9		6				7		32	42	4
Kaufman	1965		471	male acad.grad.	"	12		6				6		29	40	7

* Citations in Bibliography

**Beatrice G. Reuben's forthcoming book, Bridges to Work: International Comparisons, cites additional foreign studies.

must be tempered by the fact that much of the information obtained from friends-relatives is "incidental knowledge of openings in one work place or another."[1] Carter comments that

> . . . word of mouth was an important means of finding work--mother heard of vacancies through enquiries of neighbours and at the local shops, fathers in conversation with friends on the way to the football match or in the bar of the local public house.[2]

This information does not appear to be used selectively, for knowledge of a vacancy by a relative was in many cases the only reason the youth applied. What is frequently ignored in discussions of this channel is that the type of person from whom information is obtained is probably critical, since people who have "good" jobs will generally be in a better position to hear about good jobs than those who do not. What may also be critical is whether influence was used. Carter comments that "by influence is meant more than simply dropping a hint and putting in a good word. It amounts to the ability of a person to make use of special connections in order to arrange a job for a child."[3] Almost by definition a worker would not need to use influence to find a marginal job. In Carter's study 25 percent of the boys and 20 percent of the girls utilized "influence" to obtain first jobs. This was usually linked with the use of friends or relatives.

The other informal channel which is heavily used by youth is direct application. The term may be a misnomer and English authors, such as Reid refer to this channel as "notice at firm or casual application." This better describes the process, since direct application does not indicate the chance nature of this channel. Carter states that "boys and girls called at firms near their homes, or which they happened to pass whilst out shopping in town."[1] According to both Singell and Leshner, the only apparent nonrandom factors associated with direct application was geographical, since "youth rarely left their home neighborhoods to apply for jobs."[2] Thus, another reason disadvantaged youth wind up in marginal positions is that there are relatively few good jobs within the vicinity of their homes.

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[1] Transition from School to Work, Report Number 10 (Ottawa: Canadian Department of Labor and Immigration, 1962), p. 58.

[2] Carter, Home, School, 171. [3] Ibid., 172.

Formal channels generally account for no more than 20 percent of the job finds by youth in most countries, although there is some variation in the distribution below that level. Formal methods can be divided into public and nonpublic channels. The former include schools and public employment agencies; the latter private employment services, community organizations, unions, and newspapers. According to Reubens, interest in public places stems from a concern that (1) because of limited knowledge of the labor market and a lack of skills and maturity youth require more support than older workers, (2) first jobs have a critical influence on future occupational achievement, and (3) a distrust of informal or unofficial job seeking channels.[3] Data collected by Reubens indicate that Japan and Great Britain have relatively high levels of public placements, while France and the United States fall at the other end of the spectrum. Sweden was in the middle along with Holland, West Germany and Luxembourg, although the latter three might fall in the high group. She notes some association between limited emphasis on public placement of youth and high youth unemployment rates.[1] The emphasis placed on youth placement seemed to affect the likelihood that public channels will be used in the future. Youth in countries stressing initial public placements tended to avoid public institutional intermediaries when looking for subsequent jobs. The reverse was true of young persons in other nations such as the United States, where public channels are not generally used to find first jobs. Finally, she notes that the division of first placements between the public service and schools follows no fixed pattern among countries and appears to be unrelated to the total share of public placements.[2]

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[1] Carter, Home, School, 175.

[2] Singell, 22; and Paul S. Leshner and George Snyderman, "Job-Seeking Patterns of Disadvantaged Youth," Employment Service Review (November, 1965), p. 5.

[3] Reubens, Bridges to Work.

School placement tends to be more situationally oriented than are other methods, since youth are not likely to rely on this channel once they graduate or otherwise terminate their education. Assistance from schools may come from individual teachers, a placement office or through employers who come to interview prospective candidates, as might occur on a college campus. Several studies such as one by Kaufman found

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[1] Reubens, Bridges to Work. [2] Ibid.

> . . . that teacher-assisted placement is very common among vocational curriculum graduates (of high school) because of the contacts maintained by the instructors with the employers in their particular fields. The placement office of a vocational or comprehensive high school is potentially in the best position to administer . . . bridging function.[1]

This is illustrated in Table 23. Relatively little use is made of other formal channels by vocational graduates. In the Canadian study cited earlier, the schools and teachers were found most active with "boys who have the qualifications to embark in apprenticeships and other further training programs, and girls who possess typing and other clerical skills."[2] Although there is no direct evidence of it, teachers probably carefully screen potential students and a certain amount of "creaming" may have occurred. The vocational teachers appeared to have extensive contacts with employers, and it could only be surmised that they were loath to recommend unqualified applicants if they wanted to maintain their relationships, a problem continually faced by counselors at the state employment service. This appears to be supported by the work of Kaufman who asked employers to rank sources used to recruit new employees. While only 45 percent of the employers surveyed indicated that they had been contacted by a high school regarding possible placement, 88 percent reported hiring the

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[1] Jacob Kaufman, et al., The Role of the Secondary Schools in the Preparation of Youth for Employment: A Comparative Study of the Vocational, Academic and General Curricula (University Park: Institute for Research on Human Resources, 1967), pp. 6-21.

[2] Transition from School to Work, 57.

Table 23

Inter-Curriculum Comparison of How First Job Was Obtained, by Sex*

Method	Male			Female		
	Voca.	Gen.	Aca.	Voca.	Gen.	Aca.
	%	%	%	%	%	%
Direct Application	34	42	40	31	34	44
Personal/Family Friend	26	32	29	19	19	20
School Placement	23	7	6	23	20	9
Employment Agency	7	9	12	13	14	13
Newspaper Ad	5	6	6	6	4	6
Examination	1	1	2	4	5	3
Other	4	3	5	4	4	5
Number	1070	641	472	856	1180	401

*Kaufman, 6-22.

worker and three quarters of this group stated the worker did well or very well on the job.[1] This is shown in Table 24.

Some data are available on the use of public employment services by youth, especially in Britain.[2] There, the Youth Employment Service (YES) makes contact with a large proportion of school leavers during the school year, and this accounts for the relatively high percentage of placements reported. Carter reports that "the fairly general belief amongst parents and children [was] that the YES has only second-rate jobs to offer is refuted."[3] All is not well with regard to the YES, since companies with the most-sought-after jobs did not generally inform the service about these positions. Youth were often under the erroneous impression that the service offered jobs rather than served as a referral and counseling agency.

Among the group studied by Carter, turnover in jobs found through YES was generally higher than those experienced by youth using other methods, suggesting that youth left YES-placed jobs prematurely. Furthermore, the youth relying on the Service took limited interest in finding jobs in the first place and waited for some time after leaving school to start the job hunt.[4] He concludes

> . . . that more children did not make use of the YES . . . is due to the fact that most soon found work by other methods which

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[1] Kaufman, et al., 7-23.

[2] Kenneth Roberts, From School to Work: A Study of the British Employment Service (New York: Barnes and Noble, 1971).

[3] Carter, Home, School, 166. [4] Ibid., 166-67.

Table 24

Sources Used to Recruit New Employees*

Source	Degree of Use					
	Used at All		Used Most		Used Least	
	%	Rank	%	Rank	%	Rank
Personal Contacts	90	1	26	1	12	3
Newspaper Ads	76	2	22	2	20	6
Public Employment Agency	75	3	18	3	17	5
School Placement Service	66	4	11	5	16	4
Private Employment Agency	58	5	13	4	23	7
Unions	13	6	2	7	11	2
Others	7	7	9	6	2	1
Total	385**		101		101	
Number	658		602		592	

*Kaufman, 7-23.

**Exceeds 100 percent because most respondents named more than one source. The sum indicates the average respondent names almost 4 (3.85) sources.

> came more readily to their minds, that they forgot about the existence of the Service, and that some were prejudiced against it.[1]

Use of the Service tended to be a one-shot affair, and once established in the labor market, very few English youth went back. Patterns in the United States and Canada, with considerably higher rates of youth unemployment show a much lower reliance on the public employment service to find early jobs. Limited use of the service by Detroit youth stemmed primarily from the fact that young persons were generally unaware of it; only half knew where it was located. Contrary to studies of other types of workers, youth in Detroit did not believe that the employment service provided only bad jobs. However, only half of the youth going to the service actually received a lead, and only about one quarter of these resulted in a job that continued for longer than two months.[2] Leshner, in a study of 450 disadvantaged black youth from North Philadelphia, reported that only 15, or 3 percent, of the youth went first to the state employment service.[3] Hall and MacFarlane report in the Canadian study that the National Employment Service was used by 8 percent of the sample to find their first full-time job after leaving school. For males it proved more useful for looking for unskilled or semi-skilled positions with limited educational requirements. Girls tended to use it for locating both white-collar jobs and "those who entered at the unskilled manual worker's level."[4] The authors note that the employment service was more heavily utilized by youth who have already been working and have either been laid off or want to change jobs.

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[1] Carter, Home, School, 165. [2] Singell, 22.

[3] Leshner, 55. [4] Transition from School to Work, 59.

The last two nonpublic formal channels utilized by youth are newspapers and private employment agencies. Rates for both are very low, and there are very little data in the literature on their use by youth. The young people in Singell's sample who used private agencies felt the agencies were exploiting them, and that the service should have been either free or at least nominal in cost. All vowed never to use it again. The only trend with regard to this channel is noted by Reubens, who found young female office workers often went to private agencies. Occasional use is made of unions and what is called part-time work. The latter is not really a finding channel per se, but rather reflects the fact that some youth continue on the part-time job they held during the school year. Reubens notes this is particularly prevalent in countries where students are accustomed to work part-time during school vacations.[1] This also appears associated with the number of years of schooling.

A number of characteristics appear associated with the way youth find jobs. Age and education appear directly related to the use of formal channels in the United States. The reverse is true in England, where the higher the level of education, which is closely linked to social class, the greater the use of informal techniques.

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[1] Reubens.

Lipset suggests that the individual's position in the labor market, a euphemism for social class, determines the means through which job information is obtained. He found that informal channels are used by young manual and white collar workers and that only "trained individuals with higher education and initial skills can fruitfully use the formal channel of communication to learn about job opportunities."[1] Reynolds also notes differences within informal methods between youth whose parents are skilled and unskilled. The former placed heavier reliance on friends-relatives rather than direct application, while the reverse is true of the former. Knowledge of a use of public employment service tends to be greater among youth from lower socio-economic backgrounds. At least one author feels this is linked to the lack of informal contacts.[2] The only characteristic which appears related to school placement was enrollment in a vocational curriculum.

So far the discussion has focused solely on job finding as if this could somehow be separated from the general context in which youth obtain their first jobs. This is not possible, since job finding can only have meaning within the youth's total situation. The description by Reynolds written two decades ago may still be accurate today. He stated that

> . . . most youngsters (and their parents) approached the choice of a first job with no clear conception of where they were going; the great majority of first jobs were found in a very informal

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[1] Lipset, Bendix, and Malm, 223.

[2] Singell, 21.

> way, preponderantly through relatives and friends; the great majority of youngsters took the first job they found and did not make comparisons with any other job; their knowledge of the job before they took it was in most cases extremely meager; and in most cases the job turned out to be a blind alley which did not lead to anything better.[1]

Sheppard, writing exactly twenty years later, says "the pattern involves--at least for working-class youth--haphazard choices of early jobs based on limited knowledge of the full range of occupations and kind of employers."[2] Unrealistic occupational aspirations are reported by both Reynolds in 1949 and Parnes in 1966. In the National Longitudinal Survey blacks showed much more unreasonable expectations than did whites. Youth did not choose a job so much as drift into employment. "There was little tendency to shop around, locate alternate opportunities and compare their merits before accepting a particular job."[3] The matter of choice is also considered by Lipset as one of three factors influencing how the first job is found, the other two being whether the job is obtained in response to immediate pressure rather than at the proper time and the source of information used.[4] The extent to which choice can be exercised is partly the result of the employers' demand that the applicant accept or reject a job offer on the spot. Reynolds feels youth are not all that much different from their parents.

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[1] Reynolds, 128.

[2] Harold L. Sheppard,"Youth Discontent and the Nature of Work," in David Gottlieb, ed., Youth in Contemporary Society (Beverly Hills: Sage Publications, 1971), p. 99.

[3] Reynolds, 130.

[4] Lipset, Bendix, and Malm, 229.

> The circumstances which condition the job choices of young people are, broadly speaking, the same as those which condition the choices of older workers. They include the great difficulty of getting accurate information about the location and characteristics of job vacancies, the tendency of employers to fill vacancies from within their present work force or from acquaintances of present employees, the consequent justified belief among workers that "contacts" are extremely important in getting work, the fact that in depression vacancies are so scarce that it may be quite rational to take the first which presents itself, and the fact that even in good times few workers have sufficient resources to permit a leisurely survey of the market. The very limited job horizon of most workers prevents them from advising their children correctly just as it hampers them in making a wise choice of jobs themselves.[1]

Severely disadvantaged youth were willing to accept almost any job and manifested a "deep uncertainty and almost blind groping in attempting to deal with their job problems."[2] These youth often have no valid reason for applying to some establishment. Their vague and random job-seeking patterns were thought to stem from an almost total lack of orientation to the job market. They may not differ significantly from many other youth with no readymade contacts who tended

> . . . to apply first at plants which are large and conspicuous, or which are near his home, or which he has heard mentioned by friends, or which he simply happens to be passing on the street. The search for work is not guided to any extent by knowledge of comparable wage rates and job opportunities in different plants.[3]

The problem would not be so serious if the lack of information applied only to the first job, but there is some evidence to indicate that for many youth, subsequent job changes are based on "equally vague knowledge about working conditions, chances for advancement, steadiness of employment, and other job characteristics."[4]

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[1] Reynolds, 132. [2] Leshner, 54.

[3] Reynolds, 120. [4] Singell, 23.

CHAPTER IV

METHODOLOGY

The Data Base

The National Longitudinal Survey.--Within the last few years the data from a rather unique survey have become available for public use.[1] This survey, entitled the National Longitudinal Survey (NLS) or the Parnes Survey, examines the labor market experience of four age-sex groups--young men and women 14-24, mature women 30-44, and older men 45-59--over a five year period during which many of these individuals enter, re-enter or withdraw from the labor force.

In response to a range of governmental policy requirements, national data about unemployment, employment, hours of work, industrial and occupational characteristics, etc., are collected through such media as the Current Population Survey. While such efforts provide important descriptive data about the behavior of the labor force and insights into the relationships between various demographic characteristics and labor force participation, reliance on information collected at one point in time limits identification of processes and trends. One of the problems with these "snapshots" is that they provide static views of employment patterns that obscure the enormous ebb and flow into and out of the labor force and the evolving and changing nature of the work experience of various groups.

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[1] This section appeared, in somewhat modified form, in an article entitled "Labor Force Behavior: A Longitudinal Perspective," Review of Public Data Use, 1 (July, 1973), pp. 7-13.

In many types of labor market research, interest centers on labor market trends, the phases through which work careers progress and the effects such events as marriage and childbirth have on work experience. In these situations, examining worker behavior at several points in time is a more profitable technique than a cross-sectional view, for it permits the researcher to clarify "a sense of progress and transition, of real movement along a path from one position to another."[1] This is imperative in the study of how workers engage or disengage from the labor force, for the process is not a single act but rather the outcome of a long sequential series of steps, each building upon the last.

Longitudinal Designs and Their Problems.--Longitudinal surveys can be defined as efforts to measure and compare one or more characteristics of the same group of individuals at two or more points in time. While periodic surveys are usually an integral part of a longitudinal design, certain one-shot retrospective or ex-post facto designs, which ask respondents to recall activities at some prior date, may qualify as longitudinal.[2]

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[1] Piker, 268.

[2] Longitudinal Studies of Labor Force Behavior, Working Paper (Columbus, Ohio: Center for Human Resource Research, March 20, 1967) (mimeographed); and Career Thresholds, I, 5.

The type of time-series design used in the National Longitudinal Survey is especially advantageous when the variables under examination either cannot be measured retrospectively or are subject to faulty recall. Longitudinal surveys also excel when the interest is in examining movement into and out of the labor force, or mobility between occupations, industries and geographic areas, or isolating effects of developmental process or providing insight into causation.[1] Causal analysis of labor market behavior is still in a rather embryonic state because of the complex patterns of interaction among large numbers of variables. One of the advantages of the National Longitudinal Survey is that it allows testing of the predictive power of certain variables. It also has alerted researchers to the problems involved in conducting longitudinal studies.

Such designs are not without their problems. In longitudinal studies "the problem of non-response is exaggerated by the further loss of persons who provided an interview in the first wave, but who refuse or become unavailable in subsequent waves."[2] Later attrition of members may act to either increase the original first wave bias or reduce it. Analysis of four selected panel studies conducted by the Survey Research Center indicate that losses are heaviest in early waves and subsequently taper off as mobile respondents drop out and those remaining become interested in the study.[1] Survival rates for three Survey Research Center studies involving three or four waves averaged about 60 percent of those originally interviewed.[2] The problems of attrition involve not only the portion of non-response but their distribution, for loss among certain sub-groups can introduce systematic bias to the sample.

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[1] Parnes, Monthly Labor Review, 14.

[2] Jacob Benus, "The Problem of Non-Response in Sample Surveys," in John S. Lansing, ed., Working Papers on Research in Poverty Areas (Ann Arbor: Survey Research Center, 1971), p. 31.

By any standard, losses in the National Longitudinal Survey have been astonishingly small. Attrition rates for the young women, mature women and older men after one, two, and three years respectively were 4.3, 5.5, and 13.2.percent of those interviewed in the first wave. Not surprisingly, loss was greater among specific sub-groups--those who were out of the labor force, highly mobile, unemployed, not enrolled in school--although in most cases the loss was not sufficiently large to introduce significant bias into the findings.[3] While non-response rates tended not to vary along racial lines in these cohorts, reasons for non-responses did; whites more likely refuse to be interviewed, while blacks could not be located in part because of higher mortality rates. Only in the case of the younger men could attrition be considered a problem. In this cohort the total loss was 25 percent--21.5 of the whites, 27.1 of the blacks--after the fourth wave, although 60 percent of this loss was caused by induction into the Armed Forces.[1] This is shown in Table 25. By the 1968 and 1969 surveys gross movement out of the young men's surveys had slowed considerably and was being offset by flow-back into the sample of returning veterans and other noninterviewees. As was true with some of the other cohorts, such characteristics as unemployment and a prior history of mobility were associated with nonresponse. Color had a more important bearing on attrition than was true in any other cohort. By any measure the limited wave-to-wave loss is phenomenal, and great credit must be given for the field work which was carried out by the Bureau of the Census.

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[1] Benus. [2] Benus, 35.

[3] The Pre-Retirement Years: A Longitudinal Study of Labor Market Experience of Men, I, Manpower Research Monograph No. 15 (Washington: U. S. Department of Labor, 1970), pp. 2-3; Dual Careers: A Longitudinal Study of Labor Market Experience of Women, I, Manpower Research Monograph No. 21 (Washington: 1970), pp. 2-3; and Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women, II, Manpower Research Monograph No. 24 (Washington: U. S. Department of Labor, 1972), p. 2.

Status of the National Longitudinal Survey.--The Survey sprang from concern within the Labor Department over the plight of many older workers, particularly blacks, who were experiencing extended periods of unemployment and were withdrawing prematurely from the labor force. The Department approached Dr. Herbert Parnes, a labor economist at Ohio State University, who agreed to design a survey, develop the interview schedules and write descriptive summaries of the findings. A contract was negotiated with the Bureau of the Census to collect and process the data and to produce tables desired by Parnes. Success with the survey of the older men as well as pressures from other agencies within the Labor Department led to the decision to enlarge the effort to young men and then to young and mature women.

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[1] Career Thresholds, IV, 4.

Table 25

Composition of the Original Sample and Attrition by 1969*

1966 Survey for Young Men							
	Total Sample Selected	Total Interviews	Nonresponse				
			Refusals	Armed Forces	Moved	Other	Total
Total Number	5,704	5,225	120	70	171	118	479
Percent of Workload	100.0	91.6	2.1	1.2	3.0	2.1	8.4
Percent of Nonresponse			25.1	14.6	35.7	24.6	100.0

1969 Survey of Young Men							
	Total Eligible for Interview	Total Interviews	Nonresponse				
			Refusals	Armed Forces	Unable to Contact	Other	Total
Total Number	5,015	4,033	54	689	179	60	982
Percent of Workload	100.0	80.4	1.1	13.7	3.6	1.2	19.6
Percent of Nonresponse			5.5	70.2	18.2	6.1	100.0

*Career Thresholds, IV, pp. 145-47.

With youth, research interest centered around the process of transition from school to work, the development of career choices and the accommodation or adjustment to the requirements of the labor market. With the women's surveys there was additional concern about the influence of marriage and family responsibilities on labor force participation.

While the surveys generally ran for five consecutive years, starting dates differed. The two men's surveys began in 1966, the mature women's in 1967, and the young women's in 1968. Data were usually gathered through personal interviews, although mailed questionnaires were used on two occasions. A six-year extension of the Survey now being planned will consist of telephone interviews, probably every two years, followed by a final personal interview, provided a reasonably high response rate can be maintained. Figure 7 indicates the status of the National Longitudinal Surveys as of the spring of 1973. The two-to-three-year lag between completion of the surveys and public dissemination of the data is caused by the need for extensive coding and editing by the Bureau of the Census and for the Center of Human Resources, of which Parnes is Associate Director, to analyze the data, revise the tapes and produce preliminary findings for the Department of Labor.

Sample Selection.--The respondents in all four panels were obtained through

> a multi-stage probability sample located in 235 sample areas comprising 485 counties and independent cities representing

Figure 7

The Status of the National Longitudinal Survey as of March 1973[*]

Cohort	Number Completed	Years in Which the Survey was Conducted	Annual Reports Completed	Planned Telephone Survey (last is an interview)[**]
Men 45-59	5	1966, 1967, 1968 (mail), 1971	Preretirement Years Vol. 1, 1966 Vol. 2, 1967 Vol. 3, (1968/69)	1973, 1975, 1977
Women 30-44	5	1967, 1968 (mail), 1969, 1971, 1972	Dual Careers Vol. 1, 1967 Vol. 2, (1968/69)	1974, 1976; 1978[**]
Men 14-24[***]	6	1966, 1967, 1968, 1969, 1970, 1971	Career Thresholds Vol, 1, 1966 Vol. 2, 1967 Vol. 3, 1968 Vol. 4, 1969	1973, 1975, 1977
Women 14-24[***]	6	1968, 1969, 1970, 1971, 1972, 1973	Years for Decision Vol. 1, 1968 Vol. 2, 1969	1973, 1977, 1979

[*] Manpower Administration, U. S. Department of Labor.

[**] Last survey will be by personal interview. If respondent cannot be located by telephone a personal interview will be attempted. All future surveys dependent on proven feasibility of the initial surveys.

[***] There was also a 1968 survey of the last secondary school attended for these groups.

> every state and the District of Columbia. The 235 sample areas were selected by grouping all of the nation's counties and independent cities into about 1,900 primary sampling units and further forming 235 strata of one or more PSU's that are relatively homogeneous according to socio-economic characteristics. Within each PSU a probability sample of housing units was selected to represent the civilian non-institutionalized population.[1]

The 235 sample areas were used in an experimental Monthly Labor Survey conducted between 1964 and 1966 to test proposed changes in the schedule for the Current Population Survey.[2]

Since race exerts a critical influence on the labor market experiences of the four cohorts, special care was taken to obtain statistically reliable estimates for blacks. This took the form of selecting households in predominately black enumeration districts at a rate three times that of households in white enumeration districts.[3] Because the plan for the Surveys called for approximately five thousand sample cases, each cohort included about 1500 blacks and 3500 whites, plus a small number of other minority groups. In order to facilitate estimation of the national population, sample cases were also assigned individual weights to adjust for the different sampling ratios for blacks and whites, for persons in the initial sample for whom no information was obtained because of absence, refusals or unavailability and for the known distribution of population characteristics. The latter was based on the 1960 Census and independent estimates of the civilian non-institutional population by age and color as of November 1966.[1] Use of the same sample areas for all four cohorts results in the presence of persons from the same family in the same or different cohorts.

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[1] "Content and Record Layout of the 1968 National Longitudinal Survey of Work Experience of Males 14-24" (Washington: U. S. Bureau of the Census, March 30, 1971) (mimeographed).

[2] Career Thresholds, I, 3. [3] Ibid.

Variables in the National Longitudinal Survey.--The research value of the National Longitudinal Survey flows both from its design and from the extensive amount of the information collected. Most of the variables in the survey can be loosely classified as independent or dependent and static or dynamic, although there may be considerable overlap. Static independent variables include date and place of birth, race, family background, presurvey work experience, education, training and skill level; dynamic independent variables cover marital status, education for those in school, physical condition and health, number of dependents, composition and labor market activity of other members of the respondent's household and respondent's financial condition. Indicators of certain environmental factors such as employment opportunities, size of local labor force and unemployment rate were collected and will eventually be included, although they are not currently available on the public tapes.

There are also a series of unique social-psychological measures which may be treated either as dependent or independent in an analytic context. These include several which are common to all the cohorts--commitment to work, job satisfaction and alienation; while others, such as extent of occupational information, education and occupational aspirations, an abbreviated version of Rotter's internal-external locus of control scale, propriety of labor market activity and attitudes toward retirement, are limited to only one or two cohorts. For the youth, special measures of school quality and mental ability were obtained from the last high school attended.

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[1] "Content and Record," 9.

As would be expected with a survey of this type, variables that relate to labor force behavior are dynamic by their very nature. They include a number of measures of labor force participation or lack of it (employment status during the preceding week, weeks spent working or looking for work during the last twelve months, hours per week worked), Bureau of the Census occupational and industrial classifications, the Duncan Socio-economic Index, job and non-job related income, duration and location of current and past jobs, etc. Because of the longitudinal nature of the survey, certain of the quantitative measures of labor force participation can be cumulated--number of weeks worked or unemployed, number of employers and occupational assignments and total income--so as to generate a unique moving picture of an individual's labor market attachment. Other categorical measures such as survey week status can be compared to the preceding and the initial year.[1]

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[1] Longitudinal Studies, 2-3.

Current Research on the National Longitudinal Survey.-- The most extensive work to date on the survey emanates from the Center for Human Resource Research at Ohio State University. Parnes and a number of other researchers at the Center have produced a series of monographs which present descriptive findings of each survey. They are entitled The Pre-Retirement Years, Dual Careers, Career Thresholds, and Years for Decisions referring to the older men, mature women, young men and young women's cohorts. The Ohio State group has also published a number of more specialized reports which examine particular special dimensions of labor force activity, such as influence of schooling on the labor market success of young men and withdrawal and retirement expectations for older men. (See Bibliography for citations.)

A number of interesting findings have resulted from analysis by the Ohio State group and are reviewed at greater lengths in the monographs. Health and general physical condition appear to exert a more important influence on the labor force activity of older men than originally expected, particularly for blacks.[1] This supports the findings in one analysis of the Survey for Economic Opportunity which found that black/white differentials in unemployment rates were sharply reduced when the effects of health were removed.[2] Among young men, job changing was concentrated among those with the poorest jobs and generally led to job improvement.[1] There was also a much larger than expected incidence of occupational movement within the same employer.[2] For young blacks early occupational and educational aspirations are higher than the opportunities society normally provides for their realization. These aspirations show a precipitate drop as the survey progresses.[3] Women 30-44 re-entering the labor force had much more downward occupational mobility than was anticipated when current and first jobs were compared.[4]

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[1] Pre-Retirement Years, II, 13.

[2] Sally Bould VanTil, "Work and the Culture of Poverty: The Labor Force Activity of Poor Men," Unpublished Ph.D. Thesis, Bryn Mawr College, 1973.

At a June 1973 users conference at the Center for Human Resource Research, participants provided brief descriptions of research being undertaken. While it is impossible to do justice to the wide range of topics being examined, efforts can be grouped under several broad headings. The most popular involve various dimensions of human capital. These investigations were generally directed toward determining the returns for schooling and training or the effects of health and family background on income, wages and work experience. The next most popular area concerned the interaction of fertility, marriage and family responsibility and work experience. These topic areas also reflected the varieties of disciplines represented at the conference, principally including economists in one group and demographers and sociologists in another. Other areas of research interest included age and sex discrimination, occupational assignment and mobility, interruption of schooling and child care.

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[1] Career Thresholds, III, 101-02. [2] Ibid., 42-46.

[3] Ibid., IV, 25-28. [4] Dual Careers, I, 161.

Problems with the Data Files.--While the National Longitudinal Survey provides extensive opportunities for labor market analysis, use of the Survey has been hampered by a number of the characteristics of the standardized computer tapes and documentation distributed by the Bureau of the Census. These difficulties can be generally classified into those that relate to the organization, coding or editing, the format, the consistency of questions and responses from survey to survey, the clarity of the documentation and the schedules. A few are endemic to complex surveys of this type, while others relate to a lack of foresight at the Center about how to treat some of the data and the peculiar schemes which the Bureau of the Census employed in coding and classification.

A most annoying feature of the files is the mixing of alphabetic and numeric characters in the same record location, since some statistical packages require that "alphanumerics" be converted into numeric form. The use of alphabetic characters is generally restricted to Q's and V's which stand for out of the universe and non-responses for whatever reason (not applicable, refused to answer, miscode, etc.), although N's are used in place of V's in some cohorts.

Many of the surveys possess a sizable number of randomly distributed illegal characters, and since no comprehensive list is available, each user must carefully check each of the variables under study. Despite the number of recurring questions, responses are not placed in comparable column locations on the record blocks in successive years. This necessitates development of separate format statements for each survey and complicated the development of merging programs needed to create longitudinal files.

In several cases errors occurred when the data were transcribed. In the first two years of the older men's survey, there are seven duplicate records in the file. In the young men's and women's survey, errors have also been discovered in the employment status records, a special variable describing current labor market status. Because of oversights in coding, young men and women who were unemployed and had not worked in at least two consecutive weeks were listed as never having worked rather than as currently unemployed. This error, which is being corrected, understated unemployment rates by as much as one-third for the young women and one-fifth for the young men. Fortunately, this variable is not critical to this analysis.

Like many schedules dealing with labor market activity, responses on the National Longitudinal Survey follow a complicated skip pattern depending on the status of the respondent and adjacent questions in the schedule may apply to very dissimilar groups. The applicable universe is usually determined by whether the respondent was working, looking or not in the labor force--referred to as Labor Force A, B, or C--although school or family status and a number of other factors also influence applicability.

Through a series of oversights in the construction of the interview schedules, there are several instances where information on respondents is less extensive than would be desired. For example, on the young men's survey several questions about the parents do not indicate whether the information refers to the mother or father. In the early years of this same cohort, data on why a respondent left a job and the duration of employment are incomplete or missing. [illegible]s is quite unfortunate since data on voluntary or involuntary ter[illegible]ation are of more than passing interest.

Each survey has its own unique documentation which indicates the classification and location of responses on the data records. The documentation also has a series of special attachments which present a number of key complex variables such as earnings, which must be derived from two or more questions on the schedule and which list responses to certain open-ended questions such as factors liked best or least about current job. Because of the presence of special features in the documentation, the schedules alone do not indicate the range of information available, and prospective users must refer to both the schedules and accompanying documentation to obtain a complete picture of the data covered.

Much of the difficulty this user experienced with the documentation stemmed from the lack of an index and incomplete reference to the content of the question, which prevents the documentation from being used independently of the schedule. Ambiguity also results from vague reference in the documentation to the universe toward which a particular question was directed. The combination of a very complex schedule, lack of reference to the applicable universe and the question, and absence of a table of contents and master index for each variable give the existing documentation an almost labyrinthine quality.

Planned Changes in the Data Files.--In response to these and similar problems, the Center for Human Resource Research is presently developing "a comprehensive revision of the standardized data files that had already been produced by the Bureau of the Census . . . and establishing a continuing service for making the files available to the research community."[1] The work on the files and documentation involve:

1. Eliminating all alphabetics and illegal codes.
2. Recreating all key variables including hourly rates of pay, total family income and assets, amount of training and number of weeks worked, unemployed or out of labor force, that are dependent on two or more entries so that variables are consistent within and between cohorts.
3. Standardizing and simplifying the coding scheme particularly as it relates to the same variable in different surveys and cohorts. This includes using actual values as codes and consistency in nonresponse and don't know categories. Each variable in the record will probably occupy a uniform seven-column field on the data records.
4. Clearly describing variables in the documentation to remove ambiguities and including additional derived variables developed by the Center for Human Resource Research. Presence of special Center variables will permit users with the public tapes to replicate all tables from the monographs, which is not possible now. Of particular importance is the inclusion of several measures of the respondent's local

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[1] Letter from Dr. Herbert Parnes, Center for Human Resource Research to Dr. Howard Rosen, Manpower Administration, U. S. Department of Labor.

labor market. These so-called environmental variables, which include an average unemployment rate for the year, an industrial diversification index and size of the local labor market area, were omitted from the public tapes and are the only external variables on the tapes.

5. Preparing an easy reference index to all variables that would be "listed alphabetically by key words, indicating the locations of the variable in the documentation; preparation of a univariate frequency distribution for all variables in the files." The documentation will probably be available in a machine-readable form for those desiring it.

6. Retrieval of all values will be possible through use of a single data item.

7. The Center assuming responsibility for distributing the surveys and for the provision of technical assistance.[1]

Longitudinal analysis of the Survey is currently hampered by several characteristics of the data file. Organizing data by survey year has meant that researchers interested in longitudinal comparisons must extract data for respondents from each survey and then match this information by serial number on a separate file. This is usually a tedious, time-consuming and expensive process. With this in mind, the Center will consolidate records from all the presently available surveys. Present plans call for extracting the entire record blocks of each respondent from each of the separate surveys in a cohort and laying them out sequentially in a long, merged record block. Thus, all the past entries for a respondent during the life of the panel will be located contiguously, although data from each year will still be grouped together.

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[1] Letter from Dr. Herbert Parnes.

Variables Used in the Analysis

The Sample.--The analysis will be restricted to young men in each survey year who are employed or employed but not at work and have fifteen or fewer years of education. When longitudinal labor market experiences are being examined, respondents who were not employed during more than one of the four years between 1965 and 1969 will be excluded from the sample. These limitations were considered necessary given the diverse labor market experiences of various groups in the cohort, particularly enrolled and nonenrolled young and college and non-college graduates. It was felt that while the inclusion of some of these groups might yield valuable information, it would also needlessly complicate and lengthen the analysis, and divert attention from those who experience the most difficulties with transition. Young women were excluded for more practical than chauvinistic reasons, partly to keep the scope of the study within manageable limits, and partly because fewer surveys of the young female cohort, which began in 1968, were available.

Dependent Variables.--The survey of young men collected information on actual or anticipated job search techniques in a number of contexts. The three main questions on job finding, which recur every year, include search methods used by those who actively looked for work during the four weeks preceding the interview, the standard definition of unemployment, the method the respondent used to find his current or last full-time job and the techniques employed which respondent might use to look for work within the next twelve months if he lost his job.[1] In addition, three retrospective questions were included in the 1966 Survey on how respondents searched for jobs in the years preceding the first survey. These include how the respondent found a job held in the last year of high school, the job held immediately after he stopped attending school full time, and how young men without any work experience looked for work in the last twelve months preceding the first survey. (See Figure 8 for the exact wording of these questions.) The same six techniques are included in each of the job-search and job-finding questions, although they may be listed in a slightly different order. These include school employment service (or counselor), public (state) employment agency, private employment agency, direct contact with an employer, placed or answered newspaper ad, and friends and relatives. There is another category which includes such formal agencies as unions, MDTA programs, professional registers, etc. In this analysis, special attention will be directed toward the two publicly funded formal methods, the school or public employment service, since these organizations can be easily modified to suit the needs of youth in transition. Unfortunately, the nature of the search process is such that under certain circumstances respondents will not restrict themselves to a single method, but instead utilize some combination of two or more. Multiple use is most prevalent in those questions directed

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[1] How the Government Measures Unemployment, Report 418 (Washington: Bureau of Labor Statistics, 1973).

Figure 8

Job Search Questions in 1966 Survey

Question Number	Wording of Question
40b	What have you been doing in the last 4 weeks to find work? (Mark all methods used; do not read list)* 0. checked with school employment agency 1. checked with public employment agency 2. checked with private employment agency 3. checked directly with employer 4. placed or answered ads 5. checked with friends or relatives 6. other--specify: for example, MDTA, union or professional register, etc. 7. nothing
43a	How did you find out about this (current-last) job?* 0. school employment service (or counselor) 1. public employment agency 2. private employment agency 3. employer 4. newspaper ad 5. friends or relatives 6. other--specify __________
45a	If you intend to look for work of any kind in the next 12 months, what will you do to find work?* (Same as 43a)
61a	Even though you did not work in the last 12 months, did you spend any time trying to find work or on layoff from a job, what did you do to try to find work? (Same as 43a)
65f	During your last full year in high school, did you hold a full or part-time job that lasted two weeks or more. How did you find this? (Same as 43a)
66d	Let's look back now to when you stopped going to school full time. I'd like to know about the first job at which you worked at least a month. How did you find this job? (Same as 43a)

*Recurs in 1967-69.

at how the respondent intends or anticipates searching for a job and to a lesser extent in how those unemployed during the four weeks preceding the interviews searched. Single responses were more likely to occur to the items on the method respondents used to find the job held during the last year he attended high school, the first job after he stopped attending school full time and the current/last job, because jobs are usually found through a single method and because the respondents will, more than likely, recall the technique that actually led to a job. Specific combinations of method are often identified, particularly if the school or public employment service was one of the methods used. There is also a catch-all "other combinations" category.

Respondents were not prompted in the interview--that is, asked whether a particular specified method had been used in their search. There is some evidence that this leads to under-reporting since respondents may have difficulty recalling having used a particular method at the time of the interview if not prompted.[1]

The dependent variable in this study is the method actually used to find a job. This information is available for jobs held during and immediately after high school for those who were working prior to the start of the Survey and for jobs held at the time of the initial survey or in any of the subsequent years.

Choice of method through which jobs were found as the dependent variable was in part dictated by the nature of the Survey. The number of respondents who were unemployed at the time of each interview, and therefore eligible to respond to the question about how they looked, is relatively small--approximately five hundred cases a year--and the same individuals may not occur in more than one survey. When these cases are further distributed among the six search methods, the number of responses available for analytic purposes is extremely limited. Furthermore, the twelve-month hiatus between surveys hinders comparisons of the method of search used by the respondents with the job found through the use of that method, since other jobs may intervene between the two surveys. In addition, this approach would beg the question as to whether different techniques are more or less successful because of the type and qualifications of the persons using them, in relation to such factors as the type of jobs sought, the scope and timeliness of labor market information available to a particular technique, the asking wages of the job seekers, the availability to the user of a given technique.[1]

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[1] Reid, 483; and Pilot and Experimental Program, 42.

Data on how a job was foundwere better suited to use as a dependent variable. It was answered by a large number of respondents and was, moreover, the only search question where specific search outcomes, in terms of the type of job located, could be positively ascertained.

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[1] Evaluation of Grant Proposal No. 91-492, Memorandum to Herman Lasken, Manpower Administration, U. S. Department of Labor, October 2, 1972.

The format used to organize job-finding data on the data records was rather peculiar, and considerable effort was expended rearranging the data into a form amenable to analysis. In some surveys seven one-column fields are used to identify use or nonuse of each of the seven primary search methods, while others use a two-column field that has a category for each of the methods, if a single technique was used, plus a number of combinations for situations where two or more were utilized. These two alternative formats are illustrated in Figure 9. A problem with the two-column variable is handling respondents using two or more methods which may be classified as a separate entry if the combination occurs frequently or dumped into the amorphous "other combinations" category. In all of the surveys the number of combinations classified separately is small, forcing most of the multiple users into a vague "other combinations" category. To make things worse, there is a lack of consistency in the methods that are used to construct separate combinations of methods in each survey. This feature impedes inter-year comparisons.

To analyze surveys with the seven-column format, a special procedure had to be devised to identify all possible combinations. This technique involved multiplying the first column response by 1,000,000, the second by 100,000, the third by 10,000, etc., and adding them. If all other characters N's, Q's, and X's are recorded as zeros, then a new seven-digit value emerges where each combination of methods has its own unique value. If all methods were used by the respondent the resulting value could be 1234567 as shown in Figure 10. This is a useful

Figure 9

Different Formats for Method Used to Find Current-Last Job 1966-69

1966 Survey

FORMAT	POSSIBLE RESPONSES		
Two columns for all responses	If no method used	If some method used	Type of method used
851-852	VV or QQ	10	School Employment Service
	VV or QQ	11	Public Employment Service
	VV or QQ	12	Private Employment Agency
	VV or QQ	13	Employer Directly
	VV or QQ	14	Placed or Answered Newspaper Ads
	VV or QQ	15	Friends or Relatives
	VV or QQ	16	Other
	VV or QQ	20	10 or 11 and 13
	VV or QQ	21	10 or 11 and 14
	VV or QQ	22	10 or 11 and 15
	VV or QQ	23	Nothing

1967 Survey

FORMAT	POSSIBLE RESPONSES		
One column for each method	If no method used	If some method used	Type of method used
613	V or Q	1	School Employment Service
614	V or Q	2	State Employment Agency
615	V or Q	3	Private Employment Agency
616	V or Q	4	Checked Directly with Employer
617	V or Q	5	Placed or Answered Newspaper Ads
618	V or Q	6	Friends or Relatives
619	V or Q	7	Other

1968 Survey

FORMAT	POSSIBLE RESPONSES		
One column for each method	If no method used	If some method used	Type of method used
623	V or Q	1	School Employment Service
624	V or Q	2	State Employment Agency
625	V or Q	3	Private Employment Agency
626	V or Q	4	Check with Employer
627	V or Q	5	Newspaper Ads
628	V or Q	6	Friends or Relatives
629	V or Q	7	Other

1969 Survey

FORMAT	POSSIBLE RESPONSES		
Two columns for all responses	If no method used	If some method used	Type of method used
641-642	VV or QQ	01	School Employment Service
	VV or QQ	02	State Employment Agency
	VV or QQ	03	Private Employment Agency
	VV or QQ	04	Checked Directly with Employer
	VV or QQ	05	Placed or Answered Ads
	VV or QQ	06	Friends or Relatives
	VV or QQ	07	Other
	VV or QQ	08	01 and 02
	VV or QQ	09	01 and 03, 04, 05 and 06
	VV or QQ	10	02 and 03, 04, 05 or 06
	VV or QQ	11	01, 02 and any other
		12	Other Combinations

Figure 10

Computing a Single Job Finding Variable from a Seven-Column Field

Method Looked Past 4 Weeks (1968)	Recode if No Method Used			Response if Method Used		
State Employment Agency	0	1	times	1,000,000	=	1,000,000
Private Employment Agency	0	2	x	100,000	=	200,000
Direct Application	0	3	x	10,000	=	30,000
Friends-Relatives	0	4	x	1,000	=	4,000
Placed or Answered Ads	0	5	x	100	=	500
Other Employment Service	0	6	x	10	=	60
Other	0	7	x	1	=	7
						1,234,567

technique for handling any situation where there are multiple punches, and there is a need for data on each response as well as all responses taken together. Use of the procedure was complicated somewhat by inconsistent ordering of the methods in the job finding questions. The school employment service was alternatively the first or last method in the 1966 and 1968 Surveys as shown in Figure 9. The methods had to be rearranged into a standard order before the procedure described above could be applied.

Independent Variables.--With large-scale surveys of this type the problem is usually not the lack of variables but exercising sufficient care in their selection to avoid being overwhelmed. This dilemma suggests a researcher's Parkinson's Law: The number of variables that are available in a large scale survey exceeds the ability of the researcher to analyze them. The presence of a multitude of potentially relevant items increases the importance of the theoretical framework which anticipates the nature and extent of the relationships that should emerge and directs attention to the most important variables.

In this particular investigation the variables and hypotheses have been grouped under four major headings which the literature suggests might be associated with job finding. These include static background characteristics, family and personal characteristics, labor market experiences, and type and quality of the job. The variables that fall under each of these rubrics are listed and described in Figure 11 and will be reviewed below.

Background Variables.--Variables in each of these four categories can be classified as either static or dynamic and independent or dependent depending upon both the nature of the variable and the analytic context. The dependent variable is how a job was found. In this analysis background variables are static and independent. In addition to race, they include a number of questions on residence, on high school education and training received after formal education was terminated, data relating to the quality of the last high school attended obtained through a special survey of the schools, father's occupation when the respondent was 14, and assets of the family in 1966. Of unusual interest is the presence of several social psychological measures. These included a test of occupational information called "Knowledge of the World of Work" that included questions on "the kind

Figure 11

Variables Available for the Analysis

I. Independent Variables

  A. Those Relating to Respondent and Family

    1. Background

      a. Race
      b. Residence at age 14
      c. Length at current address
      d. Comparison between current and prior address
      e. Number of years and type of education
      f. Post high school training
      g. Feeling about high school
      h. Occupation of father when respondent was age 14
      i. Year last enrolled in high school
      j. Degree beyond high school
      k. I. Q.
      l. Type of high school attended
      m. Number of teachers at school
      n. Per-pupil expenditure
      o. Net assets in 1966
      p. Rotter internal-external scale
      q. Knowledge of the world of work
      r. Culture exposure at age 14

    2. Personal and Family Characteristics

      a. Number of family members
      b. Marital status/head of household/number of persons dependent on respondent
      c. Age
      d. Head of household
      e. Number of weeks unemployment compensation was received
      f. Earned income of respondent
      g. Total family income
      h. Location
      i. Additional education or training received
      j. Length living at current address
      k. Car ownership in 1966
      l. Comparison current-prior address (1966 only)
      m. Family responsibility index

Figure 11--Continued

B. Job Related Characteristics

1. Last High School Job

    a. Occupation during last year of high school
    b. Industrial job last year of high school

2. First Job After High School

    a. Industry
    b. Occupation
    c. Duncan Socioeconomic Index
    d. Year started first job (1966 only)
    e. Year stopped first job
    f. Reason left first job
    g. Year/month started first job (1967-69)

C. Labor Force Experience

1. Employment status recode
2. Labor force A, B or C
3. Hours usually worked
4. Number of weeks looking/layoff
5. Stretches of unemployment
6. Number of weeks worked
7. Method used for looking if unemployed
8. Reason left 1967 job
9. Number of weeks unemployment compensation
10. Number inter-firm moves 1967-69
11. Number employers 1965-66
12. Number weeks worked past 12 months
13. Number weeks not working/looking
14. Same or different employer as last year
15. Number of years working

D. Current Job

1. Industry (1 and 2 digit)
2. Year and month started
3. Hours usually worked
4. Class of workers
5. Occupation (1 and 3 digit)
6. Duncan Socioeconomic Index
7. Hourly rate of pay
8. Location of job
9. Attitude toward
10. Whether first job
11. Month and year started

Figure 11--Continued

II. Dependent Variables

  A. Those Concerning Job-Finding

    1. How first and high school job was found
    2. How current job found
    3. Patterns of job finding during course of survey
    4. How found job in last year of school

  B. Categorizing Job-seeking Methods

    1. Formal

      a. Public employment service
      b. Private employment service
      c. School employment service
      d. Newspaper ads

    2. Informal

      a. Direct application
      b. Friends or relatives

    3. Multiple Users

    4. Patterns over Time for Successive Jobs

      a. Consistently formal/informal
      b. Shift from one to another
      c. Mixed

III. Major Controlling Variables

  A. Race
  B. Social Class
  C. Age
  D. Occupational Group--White-collar, Blue-collar, Service and Farm
  E. Education

IV. Areas Where Relationships Hypothesized

  A. Background Characteristics Influencing Types of Job Finding Methods
  B. Labor Market Experiences Influenced by Job Finding
  C. Job Characteristics Influenced by Job Finding Methods
  D. Job Finding Associated Different Quality Jobs

of work that men in certain jobs usually do" and "whether people in certain occupations earn more, on the average, than people in other occupations."[1] There was also a question on whether the respondent had access to a library card, magazines and newspapers at age 14 which will be called cultural exposure, and an abbreviated version of the Rotter internal-external locus-of-control scale which measures the extent to which respondents project responsibility for events on themselves or others.[2]

Results of the last available test of mental ability--I.Q.--was requested by the Bureau of the Census from the last school attended for those who had nine or more years of education. Data on nearly two-thirds of the respondents were obtained and were inserted on the respondent's record. Presence of better than thirty different tests of mental ability required development of procedures pooling and standardizing the diverse measures used.[3] Despite the pervasive skepticism in the psychometric literature for pooling--use of the same test under controlled condition is recommended--extensive analysis at the Center for Human Resource Research indicated that the "error introduced by . . . equating non-parallel tests seems small in comparison with the value of having a measure of mental ability available for analysis."[1] The use of I. Q. type tests can still be attacked on the ground that they measure only particular types of ability and that they are culturally biased.[2] A further problem with I. Q. measures of mental ability in the National Longitudinal Survey is that missing data is heavily concentrated among blacks and respondents from disadvantaged backgrounds. With these caveats in mind, measures of mental ability can be suggestive and add an interesting dimension to the analysis.

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[1] Career Thresholds, I, 259-60.

[2] Ibid., IV, 177-78; Julian E. Rotter, "Generalized Expectancies for Internal Versus External Control of Reinforcement," Psychological Monographs 80, No. 609 (1966); and H. M. Le Fourt, "Internal Versus External Control of Reinforcement: A Review," Psychological Bulletin, 65 (1966).

[3] Career Thresholds, I, 161-75.

There is a second major cluster of personal and family variables, which, unlike those previously reviewed, are subject to change during the course of the Survey. These dynamic variables relate to either the respondent's family circumstances or to various personal qualities.

The years that mark the transition from what can be loosely labeled as "youth" to the equally nebulous term "adulthood" cover a period marked by great change in living arrangements and family status. These range from the situation where the young man is single and living at home to one where he is married, has children, and maintains a separate residence. In order to capture the diversity of family circumstances among nonemployed respondents having fifteen or fewer years of education--which is the universe for this investigation--and to determine whether family circumstances are in fact related to job finding, a typology of family responsibility was developed. Three items used to construct this typology were marital status (divided into single, married and other), whether the respondent was a head of a household, and the number of persons who were dependent on the respondent for their support. The latter was separated into none and one, two, and three or more persons. The resulting twelve combinations are shown in Figure 12. Only half of these combinations occur among the respondents.

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[1] Andres I. Kohen, Determinants of Early Labor Market Success Among Young Men; Ability, Quantity, and Quality of Schooling: A Preliminary Report (Columbus, Ohio: Center for Human Resource Research (May, 1971); and Career Thresholds, IV, 174.

[2] Frank Riessman, The Culturally Deprived Child (New York: Harper and Row, 1962); and S. M. Miller and Frank Riessman, Social Class and Social Policy (New York: Basic Books, 1968), p. 116.

Figure 12

Index of Family Responsibility

Head or Non-Head of Household	Number of Persons Dependent upon Respondent (excluding Wife)					
	None or One		Two		Three or More	
	Married	Other	Married	Other	Married	Other
Head of Household	1	3	5	7	9	11
Non-Head of Household	2	4	6	8	10	12

Two income variables are also included under this general heading: earned income of the respondent before deductions for all jobs during the twelve months preceding the Survey and family income. In 1966 data are for all family income, while in 1967-69 it is available only for respondents living with parents. Total income for respondents (and their spouses) living alone would have been a useful addition, but had to be constructed from four or five separate entries on the schedule. Since nonwage data is missing or grossly understated among many expected to show it, development of a measure of total income would require allocation of data to missing values based on other known characteristics of the respondents, a procedure of considerable technical complexity and dubious validity, which was beyond the scope of the exegesis.[1] Concern over the validity of income data may be academic, since members of a cohort of this age are in a stage in their life cycles where income is a poor indicator or predictor of anything, especially once respondents with sixteen or more years of education have been eliminated. Other variables can and will be employed to attempt to measure these qualities.

The last major variables that fall under this rubric are residence and training received after the cessation of formal education. Data on location were restricted by Bureau of the Census rules concerning disclosures intended to eliminate even the most remote possibility that a respondent in the Survey could be identified. As a result, data on residence was limited to one of the nine divisions in the United States and non-SMSA and SMSA locations, the latter dichotomized between central city and non-central city in most of the Surveys.[2] Bureau of Census rules were subsequently revised to permit disclosures of respondents in large cities, but this would be of little benefit to the Survey since the sample is probably not representative at the state level. The 1966 Survey also compares current and prior address and indicates how long the respondents lived in his present location.

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[1] Lynda Carlson, "A Review of Research to Date in Relating Internal Revenue Service and Census Income Data," Review of Public Data Use, 1 (April, 1973), pp. 44-47.

[2] New England, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, Pacific.

The last personal variable is training taken subsequent to the completion of formal schooling. As would be expected, given the Department of Labor's interest in the effects of training on labor market behavior, there are a large number of questions in this area. Despite the long litany of items which range from kind of training, place taken, number of months duration and hours per week, why the respondent wanted training and whether training was used on the job, it was decided that the main factors which might conceivably influence job search was simply whether or not training had been taken and if so, whether training had been completed.

Employment Variables.--The next series of variables concern the work experience of respondents during each of the years and over the four-year period from the first to last available survey. Some relate to the labor force behavior during the survey week. These items were not particularly useful in this analysis, and the only item included was one on whether the respondent was working, looking, or outside of the labor force during the survey week. It should be noted that, unlike the Current Population Survey, interviews in the National Longitudinal Survey do not necessarily occur during the same survey week. Interviews for the young men were scheduled for October, but given the mobility of persons in this age cohort, additional time was often needed to locate the respondent.

The second group of questions on work experience describe respondents' work experience over the twelve months preceding the survey and were generally better suited to this research than were the former. Some concern the intensity of a respondent's attachment to the labor force, such as the number of weeks spent working, looking, or on layoff (or none of these), stretches of unemployment, and hours usually worked. Others measure the stability of the respondent's work experience in one or more years through questions on change of employers and the number of inter-firm shifts between 1967-69. These annual measures of work activity include both quantitative (interval) and categorical (nominal) measures. Quantitative variables can further be subdivided into cumulative items such as weeks worked, which can be combined over the life of the survey to provide longitudinal indicators of labor force behavior, and into non-cumulative measures. The latter items, such as hours usually worked during the last twelve months, cannot be aggregated, but can be compared from year to year as can the categorical measures.

The last major cluster of variables relate to the first and current-last job held by the respondent. The initial survey (1966) contains a number of retrospective questions on any full or part-time jobs held during the last full year in high school as well as information on the first job taken after the respondent stopped attending school full-time. These will be referred to as the last high school job and the first job. Retrospective data is relatively cursory, limited to occupation and industry in the case of the last high school job, and occupation, industry, date started and stopped, and reason job was terminated for the first job. Data on the first job of respondents who were enrolled in school at the time of the 1966 Survey but subsequently entered the labor force during a subsequent survey year, can be identified, increasing the amount of information available on the first job.

Since rather extensive information is collected on the respondents' current or last job, items are limited to those directly related to the dependent variable. Two of the most important include the 1960 Bureau of the Census occupation and industry codes. The one-digit industry codes, the most general classification, group industry into twelve categories by types. These include: (1) agriculture, forestry and fisheries, (2) mining, (3) construction, (4) manufacturing (both durable and non-durable goods), (5) transportation and communication, (6) wholesale and retail trade, (7) finance, insurance and real estate, (8) business and repair service, (9) personal services, (10) entertainment and recreation, (11) professional and related services, and (12) public administration. An intermediate two-digit industry code (LGT), which falls midway between the broad one-digit and more detailed three-digit codes. It contains nearly fifty separate industrial classifications.

Industry is a critical variable in any analysis concerned with the consequences of search behavior, for there is little doubt that hiring practices of employers and search behavior of employees will be influenced by the nature of the industry. One of the few theoretical treatments of job search, that of Stigler, involves the possibility that the general wage levels and the amount employers spend looking for workers can be substituted for one another--that is, industries with low wage levels will have to use high-cost mechanisms such as newspapers and private employment services while high-paying industries will use less costly methods.

Data on occupation is also available through 296 three-digit classifications developed for the decennial census. Unlike the case with the industrial classification, there is no intermediate two-digit code. The so-called three-digit occupational classifications were combined into eleven major occupational groups in 1960. This classification, which will be referred to as the one-digit code, includes (1) professional, technical and kindred; (2) managers, officials and proprietors; (3) clerical and kindred; (4) sales workers; (5) craftsmen, foremen and kindred; (6) operatives and kindred; (7) laborers (not farm) and mine; (8) service; (9) farmers and farm managers; (10) farm laborers and foremen; and (11) private household workers.[1] These can be further subdivided into professional and clerical (1-2), clerical and sales (3-4), blue collar (5-7), service (8 and 11), and farm (9 and 10).

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[1] Dunlop, 40; and 1970 Occupation and Industry Classification Systems in Terms of Their 1960 Occupation and Industry Elements, Technical Paper 26, by John A. Priebe, Joan Heinkel, and Stanley Green (Washington: U. S. Bureau of the Census, 1972), p. 2.

There are a myriad of problems inherent in dependence on the Bureau of the Census classification in an analysis of the type being conducted, particularly given the age of the cohort under examination.

> The present occupational classification schemes, however, are among the least satisfactory of any economic data in the country. This derives partly from difficulties inherent in comparing job classifications across enterprises, in part from analytical neglect, and in part from disparate classifications. These last have emerged for different purposes and cannot be related to each other or to other significant dimensions in the labor market such as wage rates, employment, education, training, age or measures of job content such as skill, responsibility, and working conditions. . . .
>
> This eleven-fold occupational scheme has no analytical base. It is not related to job content or any of its major components, such as skill, responsibility, or working conditions. The categories of "clerical and kindred workers" or "sales workers" run the full range of skills and responsibility. These categories are not fruitfully related to training, education, or to compensation levels. In a word, they are a "hodgepodge."[1]

Another difficulty concerns the application of the classificatory system to both entry and nonentry positions. Because youth are just entering the labor force, they often occupy a much more narrow range of positions, and even when they can be classified into the same occupation, this does not necessarily mean they are performing the same tasks as experienced workers.

A more serious fault deals with the lack of comparability in job-content and the activities of workers in the same categories. The former can be traced to some of the criteria used to differentiate occupations, which tend to reflect variations in education and income rather than job content.

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[1] Dunlop, 38.

> The decennial Census developed a classification scheme . . . based on a socio-economic view of the work force and its activities. In the language of Alba M. Edwards, who played a major role in the refinement of the present scheme: ". . . there is, and long has been, a real need for statistics showing in summary form an occupational distribution of the Nation's labor force--a need for statistics that cut across industry lines and bring together into one occupationally homogeneous group all of the workers belonging to the same socio-economic class, with but minor regard to the particular occupations they pursue or to the particular part of the industrial field in which they work." Whatever the validity of this viewpoint for an older generation, it is inappropriate for the purposes of measuring the extent of technological change, job vacancies, educational and training requirements of economic activity, or other purposes of paramount interest in this decade.[1]

The intrusion of status into the classificatory system is unfortunate, and some feel that the presence in the "classification system (of) a status concept concerning the worth of work . . . has contributed to some of the problems we are experiencing in our manpower situation today."[2] Furthermore, the implicit division between skilled, semi-skilled and unskilled occupations may generate misleading results since it is not always compatible with technological realities.

> Although the skilled, semi-skilled, and unskilled breakdown may have been useful and may have had meaning up until about the turn of the century before modern technology began to dominate the job picture, it is inaccurate and irrelevant today. To replace it, there is the concept that people function on a continuum of difficulty from the simple to the complex and that the patterns of functioning are diverse.[3]

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[1] Dunlop, 40.

[2] Sidney A. Fine, "Use of the Dictionary of Occupational Titles to Estimate Educational Investment," Journal of Human Resources, 3 (Summer, 1968), p. 370.

[3] Sidney A. Fine, The 1965 Third Edition of the Dictionary of Occupational Titles--Content, Contrasts, and Critique (Washington: The Upjohn Institute, December, 1968), p. 60.

Some of these problems are addressed in the 1965 Dictionary of Occupational Titles, developed by the U. S. Department of Labor, for the U. S. Training and Employment Service, which groups jobs according to (1) job content, (2) worker function, (3) industrial affiliation, and (4) title.[1] In the Dictionary, the first three numbers of the six-digit identification number indicate increasing detail including "work field, purpose, material, product, subject matter, service, generic term and/or industry."[2] As with the Bureau of the Census codes, the first digit represents major groups and includes the traditional categories of professional, technical, managerial, clerical or sales. Similarities cease at this point, however, and skilled, semi-skilled and unskilled give way to farming, fishery and forestry and related occupations; processing occupations; machine trades; benchwork; structural; and miscellaneous which are numbered 4 through 9 respectively. The second three digits indicate worker function according to how workers relate to data, people and things.[3]

> The system of occupational classification developed by the Employment Service is not widely accepted; it is often most difficult to translate the job title or even job description of an enterprise into the classification. For larger economic and analytical purposes, it is impossible to relate the occupational structure of the Employment Service classification to the number of employees in each category, their compensation, age, or other characteristics, or to show changes in these dimensions over a period of years.[4]

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[1] Fine, Journal of Political Economy, 371.

[2] Dictionary of Occupational Titles, 1965, Third Edition; Vol. I, Definitions of Titles (Washington: U. S. Department of Labor, 1965), p. xviii.

[3] Fine, Journal of Political Economy, 372-73.

[4] Dunlop, 41.

In any analysis, a socio-economic index of occupational status is desirable. In fact, one of the major hypotheses in this study is that class exerts a major influence over patterns of job search. Scales measuring occupational status have generally been constructed either through "the derivation of scores for detailed census occupation titles representing a composite index of education and income level of workers in each such occupation" or through prestige rating of selected occupations obtained through samples representative of the general public."[1] The scale available on the surveys, the Duncan Socio-economic Index, was in fact constructed through both of these procedures.[2] They utilized prestige ratings available for forty-five occupations in 1947 as a criterion. For these forty-five,

> . . . data in the 1950 Census of the population were converted to two summary measures: percent of male workers with four years of high school or a higher level of educational attainment, and percent with incomes of $3,500 or more.[3]

Multiple regression analysis indicated that these two measures explained 80 percent of the variation, and the regression weights were then used to assign scores of 0 to 96 to all Census occupations. Status scores are "available for 446 detailed occupations . . . 270 are specific occupation categories; the remainder are subgrouping, based on industry or class of worker, of 13 general occupation categories."[4] Not only do similar occupations possess similar status scores, but there is considerable overlap of scores between the major occupational groups, lending support to the contention that the occupational structure tends to be continuously graded rather than divided into discrete strata. This permits use of statistical techniques that assume the variables are quantitative in nature.[1]

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[1] Blau and Duncan, 118-19; and Methodology and Scores of Socioeconomic Status, Working Paper No. 15 (Washington: U. S. Bureau of the Census, 1963).

[2] Otis D. Duncan, "A Socioeconomic Index for All Occupations," in Albert Reiss, ed., Occupations and Social Status (New York: Free Press, 1961), pp. 109-38.

[3] Blau and Duncan, 120. [4] Ibid., 124.

Additional information is also available on the respondent's current or last job. These include whether the job is located inside or outside of SMSA, whether the respondent was employed or worked without pay, the hourly rate of pay, hours usually worked, and attitude toward current job. The latter three items, plus job tenure and Duncan Socio-economic Index, will be used singly and in combinations as measures of job quality, which is thought influenced by the ways jobs are found.

Social Class.--Existing research in job search and labor force behavior suggests several variables which exert an overriding influence on the ways young men find jobs and on their early work experience. The most critical appear to be race, age, education, and social class. Numerous studies on entry show the importance race plays in the initial entrance and the subsequent work experience of youth.[2] Many of the difficulties black youth face in entering and establishing themselves in the labor force stem from a combination of a disadvantaged economic status and discrimination. While discrimination undoubtedly plays a much larger role than many have heretofore been willing to admit, its relative importance is difficult to gauge, and many contend that social class rather than race is the primary determinant of black employment problems.[1] One of the two measures of socio-economic status that was used the occupation of the respondent's father when the respondent was fourteen. Choice of this measure was dictated partly by the age of the cohort under study, and since youth of this age group have not had the opportunity to establish themselves independently, measures of their socio-economic status are heavily dependent on their family of procreation. The initial surveys did ask a number of questions on respondent's family. These include mother's current occupation, father's occupation when respondent was fourteen and educational levels of parents. Unfortunately, responses to most items were extremely limited and father's--or head of household's--three-digit occupation when respondent was age fourteen was the only question on which data was available for most of the respondents. These three-digit occupation codes were then converted into the Duncan Socio-economic Index (SEI). In the Duncan each occupational category is assigned a score, and in some instances a Bureau of the Census industry code is also required. Since no industry codes were available for the father's job, a number of scores--1554--are approximate because of the use of the "industry not reported" rather than the actual industry in constructing the score.

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[1] Blau and Duncan, 121.

[2] Piker; and Levitan and Taggart.

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[1] U. S. Congress, Senate, Select Committee on Equal Opportunity, Hearings on Equal Opportunity, Schools and Inequality, Part 16C, Appendix I, 92nd Cong., 1st Sess., 1971.

The father's Duncan SEI ranged from 4 to 96. Of the 5225 respondents, occupational data were missing or not reported on 675--approximately 13 percent of the sample. Of these, 403 were white and 266 were black. Several options were available in grouping the scores in categories. These included: (1) placing equal numbers of respondents in each classification; (2) division solely on the basis of the score regardless of the number falling into each category; and (3) a slight modification of the second option to even scores out slightly. The three options are shown in Table 26. Choice between the three was influenced by a concerted downward skewing of the scores indicated by the median of 22. For all practical purposes this skewing eliminated equal division by score because two-thirds of the respondents would have fallen in the lowest two quintiles. Breaking the scores into even thirds results in a better distribution but a relatively small number of respondents fall in the third category. A slight lowering of the breakpoints from 33 to 32 and 66 to 62 produces a slightly better distribution between the middle and upper categories and leaves the first and lowest category almost unchanged.

Examination of selected characteristics of respondents who fall into each of the three categories is instructive and provides insight into the utility of the classificatory scheme. The items examined included marital status, age, race, employment status, and education in each of the four years. Respondents in each of the three categories under both options 2 and 3 showed no difference in the proportion of married versus unmarried men. In 1966, 15 to 20 percent of the

Table 26

Distribution of Respondent's Duncan Scores Using Three Different Categories

Group	Option I			Option II		
	Division by Respondents into Even Thirds			Division by Score into Even Thirds		
	Duncan Score Range	Number	Percent	Duncan Score Range	Number	Percent
Lowest	4-14	1372	30.2	4-33	2777	61.0
Middle	15-42	1655	36.5	34-66	1479	32.5
Highest	43-96	1523	33.3	67-96	294	8.5
Total		4550	100.0		4550	100.0

Group	Option III		
	Modified Division by Even Thirds		
	Duncan Score Range	Number	Percent
Lowest	4-32	2663	58.5
Middle	33-61	921	20.2
Highest	62-96	966	21.2
Total		3550	100.0

respondents in each category were married. This rose steadily to 25 to 30 percent by 1969, excluding those who had dropped out of the sample. The age distribution of respondents in each of the three categories also shows remarkable stability from year to year.

There is very uneven distribution with regard to race with blacks heavily concentrated in the lowest category as shown in Table 27. This occurs regardless of whether option 2 or 3 is used.

Table 27

Racial Distribution by Duncan Index

Group	Option 3 (1966)		Option 2 (1966)	
	Whites	Blacks	Whites	Blacks
1. Lowest	1589 (48)	1055 (90)	1700 (51)	1057 (92)
2. Middle	826 (25)	81 (7)	1351 (41)	103 (9)
3. Highest	916 (28)	36 (3)	280 (8)	12 (1)
Total	3331 (100)	1172 (100)	3331 (100)	1172 (100)

The presence of slightly fewer than 120 blacks in the second and third categories restricts the type of analysis which can be undertaken on this group. The most meaningful comparisons will probably occur between the 1600-1700 whites and the 1000-odd blacks in the lowest category.

Significant differences also emerged with regard to the educational levels of respondents in the three categories. Variation was most pronounced at the higher and lower ends of the educational spectrum and between the highest and lowest groups as shown in Table 28.

Table 28

Median Years of Education for Respondents in Each Social Class Category, 1966 and 1969

Social Class Category	Option 2		Option 3	
	1966	1969	1966	1969
Lowest	10.2	11.7	10.1	11.7
Middle	11.5	12.4	11.2	12.2
Highest	11.5	13.3	11.6	13.0
Median of Entire Sample	10.5	11.8	10.5	11.9
Difference between Lowest and Highest	1.3 yrs.	1.4 yrs.	1.5 yrs.	1.3 yrs.

As is evident, most of the difference in option 2 occurs between the first and second break, while in option 3, differences are more evenly spread. In addition, the spread between the highest and lowest groupings is somewhat larger in 1966. In both options over 20 percent of those in the lower group had eight or fewer years of education in 1966 while better than 15 percent had fifteen or more.

As the analysis progressed several problems with the measure based on the father's Duncan became apparent, forcing a rethinking of the means used to operationalize social class. The first problem involved the relatively limited impact that social class appeared to have on job-finding patterns. While this might well reflect its limited explanatory power, it could also be caused by use of an inaccurate instrument. The second involved the limited number of black respondents falling in the upper half which limited comparisons between "upper" and "lower" class blacks. It seemed possible that the downward skewing of the distribution for blacks might reflect the limited number of marginal occupations open to the parents of the black respondents.

Dissatisfaction led to the development of an alternate measure of social class which could be used to validate the explanatory power of the first. To accomplish this end a different approach was taken. Instead of utilizing the occupation of the respondent's father as had previously been the case, attention was turned toward attributes of the youth himself. In order to circumvent the "youth" of the respondents, the measure was restricted to items found in the last available survey year, when the youngest of the sample was at least seventeen and most had already established themselves in the labor market. Three standard measures of social class--income, education, and one-digit occupation--were utilized. These were divided into four categories and the numerical values were added and divided by three. Respondents without responses were eliminated. Resulting distributions for blacks and whites are shown in Table 29. Dividing the distribution at 2.33 produced categories shown in Table 30. While the social category contains a smaller percentage of whites than was true of the first social class scale, more blacks fell into the second high half than was previously the case. Item-to-scale score analysis using Pearson product moment correlations produced respectable R values of .62, .70, and .81 for income, education, and occupation.

The existence of two measures of social class derived in different ways permitted the application of a variety of statistical

Table 29

Social Class Based on Respondents Characteristics (Ungrouped)

Value	Whites		Blacks	
	Number	Percent	Number	Percent
1.00	5	0.2	13	1.3
1.33	115	4.0	72	5.0
1.67	243	8.4	157	15.3
2.00	507	17.6	279	27.2
2.33	886	30.8	330	32.1
2.67	446	15.5	97	9.4
3.00	254	8.8	39	3.8
3.33	190	6.6	15	1.5
3.67	163	5.7	20	1.9
4.00	71	2.5	5	0.5
	2880		1027	
Not available	854		411	
Total	3734	100.0	1436	100.0

Table 30

Social Class Based on Respondents Characteristics (Grouped)

	Whites		Blacks	
	Number	Percent	Number	Percent
1	1756	61.0	851	82.9
2	1124	39.0	176	17.1
Total	2880	100.0	1027	100.0

procedures to test the association between the two. Not only were cross tabulations done between the two social class measures, but Pearson's correlations were also obtained. Consistency between the first and second measure were slightly lower for whites than blacks. In the two-by-two tables slightly fewer than 60 percent of the whites fell in the same category compared to nearly 80 percent for blacks, although most of this resulted from correspondence between the first categories for the blacks. This occurs partly because the dividing line occurs at a slightly higher point for the second measures of social class than was true for the first. Gamma's for both races were respectable--.43 for whites and .53 for blacks. Pearson coefficients between the two measures were low, indicating that the two may be measuring different characteristics.

Two additional variables, age and education, were also felt critical, since there is some evidence that both have an effect upon job-finding. The former will be separated into three groups, 14 to 17, 18 to 21, and 22 and older; while the latter is divided into 0 to 11, 12,and 13 to 15 years. The effects of age will also be investigated, although it should be recognized that age may be masking the number of years the respondent has been in the labor force.

Job Quality.--In addition to social class, several other variables were constructed for use in the analysis. The first was an index of job quality. Such a variable was thought necessary to help determine whether various job-finding techniques were, in fact, related to the quality of jobs found. Such an index is obviously a subjective measure as the comments of the proposal reviewer at the Manpower Administration cautioned. He stated that:

> It is assumed that, in comparing job quality among different jobs and the persons holding these jobs, an index of job quality will be developed. To this end, the candidate should clearly indicate the specific criteria to be used in establishing such an index. While some measurement of job quality is needed for the purposes of this project, it should be noted that any numerical values assigned to the specific characteristics considered in a quality index will, of necessity, be based on the subjective value judgements of the researcher.[1]

There is a long litany of items that could be used to construct such a variable. One study of ghetto residents funded by the Department of Labor uses hours worked, earnings, and requirements.[2] The latter was not available in the National Longitudinal Survey, while the former tended to be so skewed in its distribution that it had little explanatory power. After reviewing items in the schedule, three were chosen: degree of job satisfaction, earnings, and occupational status. Earnings could be measured by either hourly rate of pay or total wage income last year; occupational status by the one-digit code which was originally conceived by Alba Edwards as a measure of status or by the Duncan Socio-economic Index. Several combinations were tried in an attempt to find the items which were most closely related. The three individual items used were tricotomized, added together and the sum was divided by three. A job quality index was developed separately for each year. If a respondent had an entry in only two of the three, he was allocated a value to the third based on a half of the sum of the other two. If data were missing from two of the three, the respondent was assigned a value of zero. Pearson correlations were run between the index for each year and the three component variables to determine the strength of the first combination, and the distribution of the four job quality measures are shown in Table 31 for the major variables before and after allocation for the combination using satisfaction, hourly rate of pay and the Duncan SEI of the current-last job as component variables. The distribution of the job quality index using these components can be found in Tables 32 and 33.

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[1] Evaluation of Grant Proposal.

[2] Manpower Research and Development Projects, 1972 Edition (Washington: U. S. Department of Labor, 1972).

Table 31

Pearson Coefficients for Job Satisfaction, Hourly Rate of Pay and Duncan SEI with Job Quality by Year

Variable	Job Quality			
	1 (1966)	2 (1967)	3 (1968)	4 (1969)
Allocated Year				
Satisfaction	.84	.96	.90	.70
Hourly rate of pay	.64	.77	.79	.76
Duncan SEI of current-last job	.78	.81	.77	.68
Unallocated				
Satisfaction	.57	.62	.60	.54
Hourly rate of pay	.30	.52	.49	.56
Duncan SEI of current-last job	.70	.73	.58	.59

Table 32

Distribution of Job Quality Scores by Race and Year

Value	Whites							
	1966 Job Qual. 1		1967 Job Qual. 2		1968 Job Qual. 3		1969 Job Qual. 4	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1.00	654	25.6	699	24.9	290	10.8	80	2.9
1.33	104	4.1	15	0.5	69	2.6	99	3.6
1.50	418	16.4	784	27.9	617	22.9	253	9.3
1.67	239	9.4	30	1.1	108	4.0	351	12.9
2.00	584	22.9	698	24.8	816	30.3	737	27.0
2.33	273	10.7	19	0.7	54	2.0	469	17.2
2.50	87	3.4	351	12.5	432	16.1	94	3.4
2.67	140	5.5	11	0.4	24	0.9	383	14.0
3.00	55	2.2	202	7.2	281	10.4	264	9.7
Missing	1180	0.0	925	0.0	1043	0.0	1004	0.0
Total	3734	100.0	3734	100.0	3734	100.0	3734	100.0
Median		1.68		1.56		1.94		2.09
	Blacks							
1.00	300	33.0	441	41.6	233	22.3	47	4.9
1.33	117	12.9	23	2.2	39	3.9	79	8.2
1.50	131	14.4	323	30.4	346	34.7	117	12.1
1.67	138	15.2	26	2.5	52	5.2	188	19.4
2.00	158	17.4	172	16.2	246	24.6	320	33.1
2.33	47	5.2	16	1.5	12	1.2	122	12.6
2.50	6	0.7	45	4.2	53	5.3	17	1.8
2.67	9	1.0	2	0.2	5	0.5	52	5.4
3.00	4	0.4	13	1.2	22	2.2	25	2.6
Missing	528	0.0	377	0.0	440	0.0	471	0.0
Total	1438	100.0	1438	100.0	1438	100.0	1438	100.0
Median		1.46		1.45		1.53		1.88

Table 33

Distribution of Job Quality Scores by Race and Year (Grouped)

	Whites							
Value	1966 Job Qual. 1		1967 Job Qual. 2		1968 Job Qual. 3		1969 Job Qual. 4	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1 thru 1.50	1176	46.0	1498	53.3	976	36.3	432	15.8
1.6 thru 2.2	823	32.2	728	25.9	924	34.3	1088	39.9
2.3 thru 3	555	21.7	583	20.8	791	29.4	1210	44.3
Missing	1180		925		1043		2730	
Total	3734	100.0	3734	100.0	3734	100.0	2495	100.0
	Blacks							
1 thru 1.5	548	60.2	787	74.2	608	60.9	243	25.1
1.6 thru 2.2	296	32.5	198	18.7	298	29.9	508	52.5
2.3 thru 3.3	66	7.3	76	7.2	92	9.9	216	22.3
Missing	528		377		440		471	
Total	1438	100.0	1438	100.0	1438	100.0	1438	100.0

Labor Market Participation.--The last set of specially created variables that will be utilized in the analysis is measure of labor market participation. Two items were used to create the first of these items--hours usually worked in the past 12 months and the number of weeks worked during the past 12 months. The distribution of this indicator in three survey years is shown for blacks and whites in Table 34.

Table 34

Labor Market Participation Index (Percents)

Strength	Whites			Blacks		
	1966	1968	1969	1966	1968	1969
Low	39.0	37.1	34.6	45.2	43.3	44.5
Medium	43.5	43.4	43.1	42.4	42.8	40.4
High	17.6	19.6	22.3	12.5	13.9	15.1
Number	3728	3730	3656	1437	1434	1391

The absence of a measure for 1967 results from one of the few errors made during creation of the special data file which incorrectly transferred data for hours usually worked in 1967. In addition, several special longitudinal indicators of labor market participation were developed which measure changes in labor market participation between 1966 and 1969. The first utilizes the 1966 and 1969 measures discussed above and indicates changes in labor market participation for respondents in Sample E between 1966 and 1969. This is shown in Table 35. A similar type of procedure was used with job quality.

Table 35

Change in Labor Market Participation Using 1966 and 1969 Measures--Sample E*

	Whites	Blacks
Decrease	13.0	14.5
Stationary	52.1	47.2
Increase	35.0	38.3
Number	1510	538

*Respondents employed in three of the four surveys with 15 or fewer years of education.

Two additional longitudinal measures of labor market participation were also utilized. These were the number of weeks a respondent worked between October 1965 and October 1969 and the number of stretches of unemployment experienced during this same four-year period. The distributions for blacks and whites on each of these items are shown in Table 36. Stretches of unemployment are divided into three categories: none, one or two, and three or more. Weeks worked were separated in 1 through 171 weeks, 172 through 200, and over 200. These were used only with Sample E to eliminate respondents who may have been in school during much of the survey.

Causal Relationships and Hypotheses

Causal Relations.--The clusters of variables just described occupy definite temporal positions vis-a-vis each other which influence the nature and direction of the relationships that will be studied.

Table 36

Longitudinal Measures of Labor Market Participation by Race

Stretches of Unemployment 1966 thru 1969--Sample E

Number of Stretches	Whites		Blacks	
	Number	Percent	Number	Percent
None	919	60.9	230	42.7
One or two	288	19.1	116	21.5
Three or more	303	20.1	193	35.8
Total	1510	100.0	539	100.0

Weeks Employed 1966 thru 1969--Sample E

Number of Weeks	Whites		Blacks	
	Number	Percent	Number	Percent
1 - 171	445	29.5	241	44.7
172 - 199	346	22.9	127	23.6
200 - 208	719	47.6	171	31.7
Total	1510	100.0	539	100.0

One possible view of the temporal location of these clusters is shown in Figure 13. Arrows indicate the way in which these clusters are thought to influence one another. Background characteristics along with labor market variables such as local and national unemployment rates, composition of the local labor force and the local industry structure have a significant bearing on the method used to find the first job, the characteristics of this job and on opportunities for career choice and upward mobility. When combined with dynamic family and personal characteristics, they also influence subsequent job-finding methods and the jobs obtained, although other forces, particularly labor market conditions, exert a strong influence. The concept of the dual labor market may be helpful in explaining how background characteristics of youth and their initial work experience channel or lock youth into primary or secondary employment patterns. One of the goals of this study is to determine whether various patterns of job finding are associated with an advantaged or disadvantaged labor market status. The relationship between job search and early work experiences are probably reciprocal in nature, which impedes the identification of causal relations.

The absence of demand variables describing the state of the labor market is unfortunate, for there is little doubt that economic conditions help determine how workers search for and locate jobs. The data files were to include information on the size of the labor force and unemployment rate in the respondents' primary sampling unit but an

Figure 13

Diagram of Relationships Between Variables

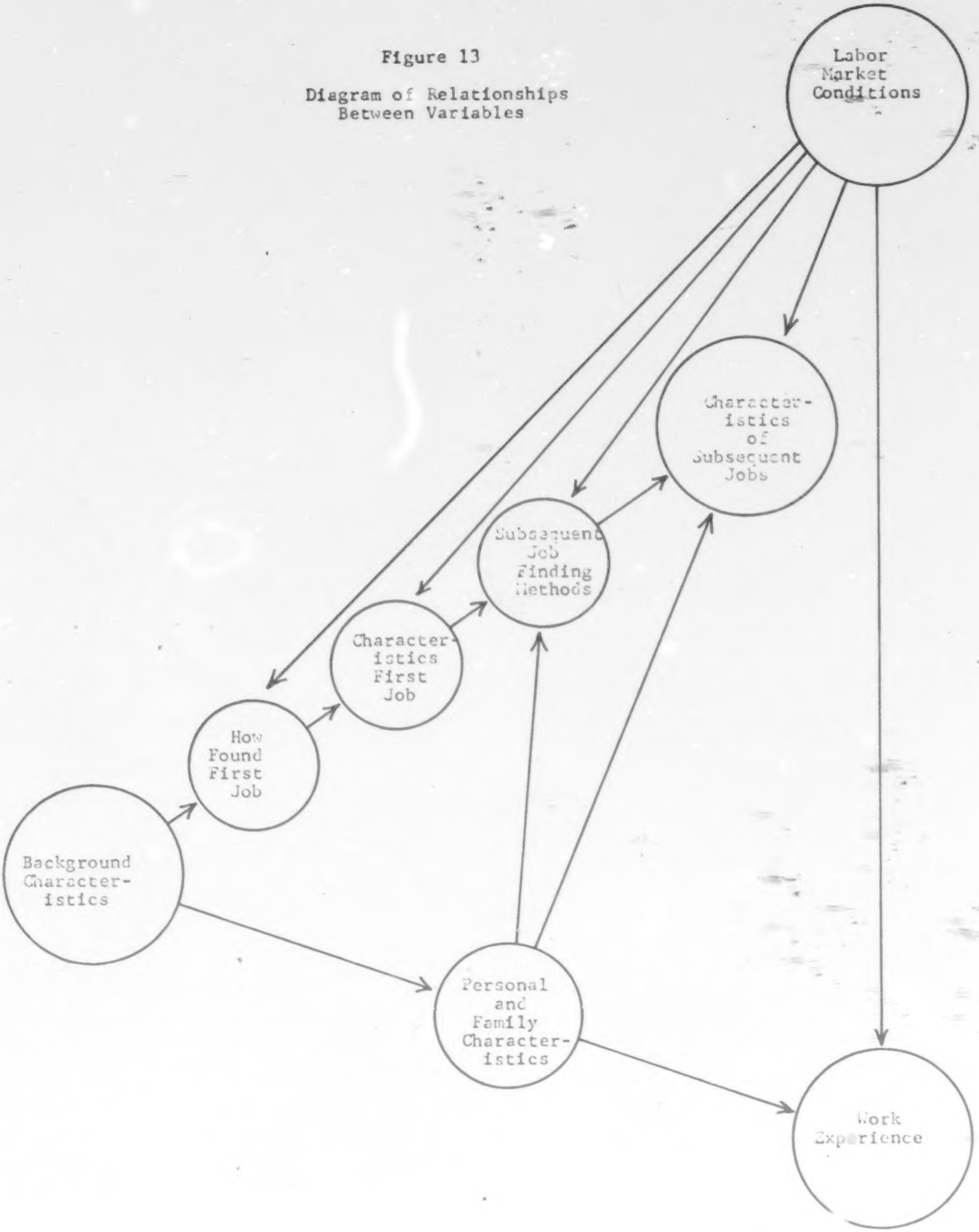
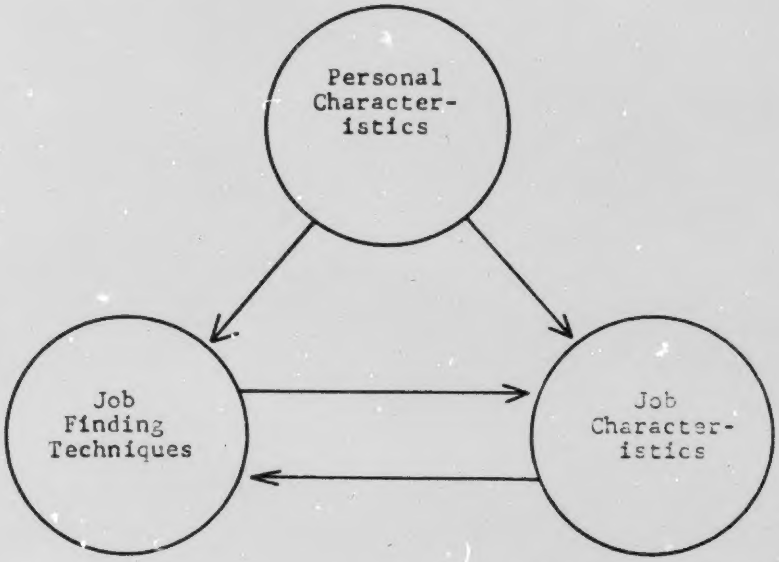

Labor Market Conditions
Characteristics of Subsequent Jobs
Subsequent Job Finding Methods
Characteristics First Job
How Found First Job
Background Characteristics
Personal and Family Characteristics
Work Experience

Figure 14

Causal Relationships between Dependent and Independent Variables



oversight led to the entering of inaccurate data and these items were not included on the tapes distributed by the Bureau of the Census.[1]

Hypotheses.-- Hypotheses used in this analysis flow from or are logical extensions of studies and theories of job search and job finding. Many of these studies focused on adults, but the patterns are thought applicable to youth as well. Hypotheses can generally be grouped under two major rubrics. The first concerns the influence of background and personal variables on job-finding methods; the second examines the influence that use of a particular method has on the type and quality of jobs located. These are diagrammed in Figure 14, which indicated the expected directions relationships should take.

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[1] *Career Thresholds*, I, 15.

In this model, background and personal characteristics determine whether particular job-finding techniques are used, while these methods dictate in turn the type and quality of jobs located. It is conceivable that job-finding techniques will turn out to be an intervening variable and drop out in the analysis. This would occur if background and personal characteristics exert a direct influence on the type and quality of jobs.

The hypotheses flow from the conviction that a youth's network of personal relationships, e.g. family, friends, and casual acquaintances, to a large extent determine their chances of locating jobs as well as the type of job found.[1] Because black youth have limited contacts with persons who possess knowledge about the availability of good jobs, it comes as no surprise that they are less likely to learn about employment opportunities than are white youth. As a result, informal methods will not have the same usefulness for blacks as whites in spite of the heavy reliance black youth place on them. Racial differences may well be illusory, simply reflecting existing social class differences. If this is the case, black and white youth with similar backgrounds should have relatively similar job-finding experiences.

Hypotheses have also been formulated in two additional areas. It was felt that job finding and the labor market experience of respondents might be associated and that patterns of job search over the four years covered by the surveys might be linked to upward occupational mobility and the quality of jobs found.

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[1] Carter.

Detailed hypotheses corresponding to the major clusters of variables can be found in Figure 15.

Methodological Issues in Longitudinal Studies

When planning an analysis with the NLS, a number of problems have to be addressed. They include the secondary character of the data, the number of sample cases needed to draw conclusions, whether to treat the survey longitudinally or cross sectionally, whether to use weighted or unweighted data, how to handle missing data and causality.

Because the data was collected by someone other than the researcher, there was no control over the types of questions asked, and it was frequently necessary to modify or tailor certain research questions to fit the available data.[1] In certain areas this has circumscribed the degree to which certain relationships can be probed, all but eliminating an examination of the effectiveness of job search as opposed to job-finding techniques. In the planning of the Surveys there was some conflict between the Bureau of the Census and the Center for Human Resource Research over the type of questions which were to be asked. As a result, there are some areas, particularly those relating to respondent work experience, where critical data are missing. For

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[1] Anselm L. Straus and Barry G. Glaser, The Discovery of Grounded Theory (Chicago: Aldine, 1967).

Figure 15

Detailed Hypotheses

I. Background and Family Characteristics Influence upon the Types and Patterns of Job-Finding

A. How Race and Class Affect Job-seeking Methods

1. Blacks and lower-class youth use formal methods, whites and the higher-class use informal methods, especially friends and relatives
2. Blacks and whites have inverse use of the public employment service and private employment agencies; blacks have higher use of public employment service and lower use of private employment agencies; whites have reverse pattern
3. Whites have a higher use of newspaper ads than blacks
4. White youth are more likely to use a school employment service than black youth
5. The influence of race on job-finding is primarily determined by social class
6. I. Q. will be positively related to use of schools
7. Blacks are heavier users of formal methods than are whites
8. Youth taking training courses will more likely use formal methods

B. The Effect of Ability, Education, Location and Age Upon Job Finding

1. Youth as a group are heavy users of informal methods
2. Vocational education graduates prove more likely to use school employment services than do non-graduates
3. Those with lower I. Q. are more likely to rely on friends-relatives and less likely to use schools
4. Older youth make heavier use of formal methods, especially public employment agencies
5. Years in the labor force has an important bearing on choice of particular job-finding techniques
6. Black youth in central cities are more likely to use formal methods, especially public employment services while whites are more likely to use friends-relatives or direct application
7. Formal methods more heavily concentrated in central cities

II. Labor Market Participation is Related to Job-Finding Patterns

A. Users of formal methods have less satisfactory labor market participation than do users of informal channels

Figure 15--Continued

B. Users of schools and private employment services have more satisfactory labor market participation than do users of public employment services or newspapers

C. Users of friends-relatives have more satisfactory labor market experiences than do users of direct application

D. Improving labor market participation is associated with higher quality jobs

III. Job Characteristics Are Related to Job-Finding Patterns

A. Job-Finding and Occupation Are Related

1. White-collar workers have a higher use of formal methods than do blue-collar workers
2. Blue-collar employees have a higher use of informal methods than do white-collar
3. Direct application is used more frequently utilized with white- and blue-collar occupations than with service occupations
4. Private employment agencies have a higher percent of white-collar placements than do public employment agencies

B. Job-Finding and Industry Are Related

1. Newspapers and private employment agencies are used more by low-wage than high-wage industries
2. Youth in manufacturing industries make heavier use of direct application and less use of newspapers and private employment services than do youth in wholesale and retail trade industries
3. Use of informal channels is higher in manufacturing and wholesale and retail trade and lower in professional and related services

C. Job-Finding is Related to Quality and Pay of Jobs Found

1. Informal methods lead to higher quality jobs
2. Formal techniques lead to low-quality positions
3. Reliance on friends-relatives led to better quality jobs than does direct application
4. Blacks will obtain better jobs through private employment agencies than through public employment service

Figure 15--Continued

5. Blacks using public employment services are paid less than whites
6. Blacks get higher wages through formal rather than through informal methods
7. Whites get higher wages through informal rather than formal methods

D. Movement from formal to informal channels is related to better quality jobs example, information on respondents who held several jobs during the course of the survey year is woefully incomplete, and there is very sketchy data on the reason why respondents left many jobs. The use of secondary analysis involves a trade-off between access to data that the researcher has tailored to his specific needs, and the ability to examine relations among a representative sample which can be generalized to the entire population.

A second problem concerns the number of sample cases that must be present before conclusions can be drawn. In his monographs, Parnes will not report results based on 25 and in some cases 50 sample cases, although statistical tests permit use of small samples in identifying relationships. This creates difficulties in this analysis when attention is directed at low-use methods such as private agencies or the public employment service. Conclusions drawn about those methods with only a few users must be treated cautiously and verified through comparisons of similar users in other years.

The path of least resistance is to conduct a cross-sectional analysis on one survey searching for relationships among variables in that year. The first survey in a cohort is usually best suited for such an analysis because of the presence of extensive data on the respondent's background and his current and past labor force activity. This relatively simple approach involves limited financial expenditures and can lay a foundation for future efforts. A cross-sectional approach can also be extended to other surveys in the same cohort in an attempt to verify results found in the initial year. Use of comparative questions in the later surveys, which contrast respondent's labor force, occupation and enrollment status in two or more years, can give this type of cross-sectional analysis a longitudinal component.

True longitudinal treatment of the National Longitudinal Survey, however, demands that each respondent's experiences be examined at two or more points in time. Parnes identifies these ways that data can be adapted to this purpose. In the first, "labor market status as of the survey data and experience during the preceding 12 months may be related to the 'static' variables (such as race) obtained in the initial survey."[1] Alternatively, so-called "cumulative" variables such as number of weeks of employment can be combined for two or more years to provide longitudinal indicators of labor force and employment behavior. In the third, various "quantitative" and "categorical" variables can be compared across years as shown in Figure 16.[2]

Longitudinal analysis is hampered by "holes" in the respondents' labor force history. Originally it had been hoped that month-by-month histories of labor force activity could be collected so that a continuous record of the respondents' activities would be available. Resistance at the Bureau of the Census precluded such an approach, and data on work experience in the period between the interviews is limited

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[1] G. Nestel, "A Longitudinal Study of Labor Market Behavior--Advantages and Some Methodological Problems in Analysis," Proceedings Social Statistics Section, American Statistical Association, 1970, p. 3.

[2] Longitudinal Studies, 4.

Figure 16

Types of Variables in the NLS*

Variables	Code current year value	Code current year value compared to previous year value	Code current year value compared to initial year value	Code current cumulative value
I. Labor market variables (dependent variables)				
A. Categorical				
1. Area of residence	X	X	X	
2. Labor force status	X	X	X	
3. Occupation	X	X	X	
4. Industry	X	X	X	
5. Class of worker	X	X	X	
B. Quantitative				
1. Hours worked, survey week	X	X	X	
2. Weeks employed	X	X	X	X
3. Weeks unemployed	X	X	X	X
4. Weeks out of labor force	X	X	X	X
5. Usual hours/week worked	X	X	X	
6. Respondents earned income	X	X	X	X
7. Number of employees	X			X
8. Number of spells of unemployment	X			X
9. Number of occupational assignments	X		X	
10. Rate of pay	X	X	X	
II. Independent variables				
A. Categorical				
1. Marital status	X	X	X	
2. Health of respondent	X	X	X	
3. Health of respondent's wife	X	X	X	
4. Attitude toward retirement	X	X	X	
5. Attitude toward job	X	X	X	
6. Training	X			
7. Pension coverage	X	X	X	
8. Asset position of family		X	X	

Figure 16--Continued

Variables	Code current year value	Code current year value compared to previous year value	Code current year value compared to initial year value	Code current cumulative value
B. Quantitative				
1. Number of dependents	X	X	X	
2. Number of family members in household	X	X	X	
3. Hours and weeks worked by other family members	X	X	X	X
4. Earned income of other family members	X	X	X	X
5. Property income	X	X	X	X

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*Longitudinal Studies, 5.

to questions on the longest interviewing job and measures such as number of weeks worked, unemployed or out of the labor force that apply to the entire year. As a result there may be blocks of time about which little or no data is available, especially if respondents had considerable movement in or out of the labor force.

When choosing variables for longitudinal comparisons, special care must be exercised to check for conceptual and operational consistency between recurring items with reference to both question wording and coding of responses. For example, in 1969 additional probing questions on occupation were introduced which involve asking not only what kind of work the respondent was doing but the nature of his activities and his job title. This change may result in occupational shifts which are more illusory than real.

Another tough issue deals with whether to use the weights that adjust for the overrepresentation of blacks and for other differences between the sample and the noninstitutionalized civilian age-sex population. Because the primary purpose of the monographs was seen as comparing blacks and whites in the population at large, weighted data is used almost exclusively by Parnes in the monographs with findings translated into percentages rather than numbers. Given the sampling variability associated with small number of cases, cells or frequencies that refer to 50 respondents have been dropped, although entries based on between 25 and 50 cases are sometimes used.[1] The number of sample cases from which these weighted observations were derived is not shown, although they can be roughly estimated.

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[1] Career Thresholds, I, 3.

Once interest shifts beyond describing characteristics of the sample to measuring or uncovering relationships that require application of analytic multivariate rather than descriptive statistics, the use of weights is open to some question. One problem with weighting involves the possibility that the results of certain tests, especially those that deal with significance, may be affected by the absolute size of the weights. A related issue concerns the amount of computer core space necessary to perform statistical computations on weighted data.

A second and more serious criticism with the weights involves the application of statistical inference to samples that were obtained through complex stratifying or clustering procedures that are not truly random. Lack of independence among elements is especially important when analysis is directed at obtaining "sample estimates of analytical rather than descriptive parameters. . . ."[1] One writer contends that as

> . . . social scientists become more mathematically sophisticated and attempt to use survey sample data to uncover _multivariate relationships_, the gap between the assumptions of existing statistical theories and the actuality of the sample designs used to collect data, makes the valid use of standard inferential techniques tenuous.[2]

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[1] Martin R. Frankel, _Inference from Survey Samples: An Empirical Investigation_ (Ann Arbor: Survey Research Center, 1971), p. 3.

[2] Ibid., 1.

Finally, as the survey progresses and attrition rises, the "absolute" figures represented by the weights become less and less accurate estimates of the civilian noninstitutionalized population, although they do provide some indication of where attrition has occurred.[1] In this analysis unweighted data will be used exclusively, and blacks and whites will be kept separate in the analysis.

Nonresponses are another problem. In the monographs, all cases for which no data is available because of nonresponse are dropped in calculating percentage distributions, on the assumption "that those who did not respond to a particular question do not differ in any relevant respect from those who did."[2] While such an approach may be acceptable with many variables, there are some, such as assets and income, where nonresponse rates are excessive and are probably biased in certain directions. The alternatives, which involves allocation of data through assignment of values, are not totally satisfactory particularly when the analysis moves beyond identifying descriptive characteristics.

When working with a survey of this type, it is easy to fall into the trap of inferring causality from simple associations. The presence of a strong relationship between such items as education and earnings must be taken at face value since both may be caused by some antecedent variable such as intelligence or social class.[3] To demonstrate causality the researcher must demonstrate not only that two variables are statistically associated but that one occurs prior to the other and that the relationship between the two remains after the effects of other variables are removed. In addition, it is also helpful to know the process through which the two variables are related.[1] Inferring causality from panel data is impeded by the absence of well-developed sets of statistical procedures which can be applied to this type of data.[2]

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[1] Career Thresholds, IV, 4.

[2] Ibid., I, 3-4. [3] Ibid., IV, 30.

The Longitudinal and Cross-Sectional Samples

The first step in the analysis involved isolating and describing respondents who were included and excluded from the final analysis. The major criteria for inclusion, it will be recalled, are fifteen or fewer years of education and being employed at the time of the survey. Since the Survey contains interview data from each of four consecutive years, respondents may experience considerable change in status over its lifetime.

The analysis was divided into cross-sectional and longitudinal phases. Respondents in both phases were in turn divided into participating and nonparticipating subsamples depending on education and enrollment status. The cross-sectional phase examined young men year by year and was separated into samples A, B, and B_1. The former is the basic cross-sectional sample and contains respondents with fifteen or fewer years of education who were not in school at the time of the interview. Sample B includes all those in each year who were not in Sample A--respondents with more than fifteen years education or in school. Sample B_1 contains respondents who were employed and had fifteen or more years of education. The major reason for identification of these two samples was to determine whether there were any gross differences in the demographic and search characteristics of respondents who were excluded from the analysis.

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[1] Travis Herschi and Hanan C. Selvin, Delinquency Research: An Appraisal of Analytic Methods (New York: Free Press, 1967).

[2] Donald C. Pelz and Frank Andrews, "Detecting Causal Priorities in Panel Study Data," American Sociological Review, 29 (December, 1964), pp. 836-48.

One serious problem with the use of the cross-sectional sample for analytic purposes is lack of continuity, since respondents included in one year may be excluded in another as their educational and school status changes. Furthermore, data from one survey year may duplicate that contained in a prior one if the item under consideration, e.g. employment, did not change. This occurred in 1967 but not in 1968 and 1969. The possible presence of identical data meant that care had to be taken to identify whether job-seeking methods applied to a new or previously held job.

Much the same kind of procedure was employed to determine the characteristics of respondents included or excluded from the longitudinal phase of the analysis. While the same two criteria--years of education and school status--were employed to select or reject respondents for the analysis, these criteria had to be examined over a four-year rather than a one-year interval. The basic longitudinal sample, labeled Sample E, was limited to persons with less than fifteen years education during all the four years who were employed three of the four years. This latter consideration was introduced to ensure that individual respondents had the opportunity to show some variation in labor market and job seeking behavior, since it is in such changes that panel data is most productive, and because of the special nature of jobs held by those not employed, especially school enrollees. Three additional longitudinal samples, which like Samples B and B_1, were created solely for comparative purposes, were delineated. Sample C consisted of respondents with more than fifteen years education who were employed at least three of the four survey years; Sample D included young men with greater than fifteen years education in school two or more years; and Sample D_1 contained respondents with fifteen or fewer years of education who were in school two or more years.

The selection of the longitudinal sample turned out to be a relatively complicated undertaking because of the number of possible variations in the labor force and school status that could occur over the four year period, the need to identify points at which employed respondents changed both jobs and employers and therefore conducted a new search and the decision to include data from the respondents first job after leaving school even though there may have been a lapse of several years between this job and the beginning of the Survey. To facilitate the identification of this sample, a special longitudinal employment status recode was developed which categorized respondents on the basis of their employment status in the current and preceding year (including their first post school job) and on whether their current job was the same as or different from that held in the preceding year. The longitudinal employment status recode contained five possible categories. Not all of the responses were applicable to each survey year. These five were:

1. no change in employer from the preceding year.
2. change of employer from preceding year.
3. new job in current survey year when no job held in preceding year.
4. no job in current year but employed in preceding year.
5. no job held in current or preceding year (1967 only).

The longitudinal employment status recode was constructed through an elaborate decision making table shown in Figure 17, and a breakdown for the entire sample for each year is shown in Table 37. It shows the number of respondents who fall in each category for the four survey years as well as the presurvey job. Less than 20 percent--953 of 5225--held a first job prior to the 1966 Survey. In the first survey year 896 were currently employed and also had separate presurvey employment. Another 2325 were working but at the time of the survey had no presurvey work experience, and the remainder were not in the labor market. The 1967 Survey is the first where all five values of the longitudinal employment status recode could occur. In that year about 25 percent--1371--held the same job as indicated in 1966. Another 1104 were working in both years but had changed employers; 677 took a job in 1967 after being without one at the time of the previous Survey, while 2095 were either out of the labor force in 1967 or had dropped out of the

Figure 17

Decision Making Table for Longitudinal Employment Status Recode

Pre-Survey (First Job)

Last Year LESR	Job Search Method Used	Same/Different Employer**	Longitudinal LESR*** (ESR 1)
N/A	If yes	N/A	3
N/A	If no	N/A	4

1966

Last Year LESR	Current ESR* (VAR 020)	Same/Different Employer	Longitudinal LESR
3	1 or 2	N/A	2
4	1 or 2	N/A	3
4	3,4,6,7,8	N/A	4

1967

Last Year LESR	Current ESR (VAR 104)	Same/Different Employer (VAR 113)	Longitudinal ESR (LESR 2)
3	1 or 2	1 or 2	1
3	1 or 2	3	2
3	0,3,4,6,7,8	N/A	4
4	0,3,4,6,7,8	N/A	4
4	1 or 2	N/A	3

1968

Last Year LESR	Current ESR (VAR 188)	Same/Different Employer(VAR197)	Longitudinal ESR (ESR 3)
1,2,3	0,3,4,6,7,8	N/A	4
1,2,3	1 or 2	1 or 2	1
1,2,3	1 or 2	3	2
4	1 or 2	N/A	3
4	0,3,4,6,7,8	N/A	4

Figure 17--Continued

1969

Last Year LESR	Current ESR (VAR 272)	Same/Different Employer(VAR281)	Longitudinal ESR (ESR 4)
1,2,3	0,3,4,6,7,8	N/A	4
1,2,3	1 or 2	1 or 2	1
1,2,3	1 or 2	3	2
4	1 or 2	N/A	3
4	0,3,4,6,7,8	N/A	5

* ESR

0. Not applicable
1. Employed
2. Employed, not at work

3 and 8. Employed and never worked

4. Unable to work
6. At school
7. Out of labor force, other

** Same/Different Employer

0. Not applicable
1. Same employer and work as last year
2. Different employer and work as last year
3. Different employer as last year

*** Longitudinal LESR

1. No change employment
2. Change since last year (employed both years)
3. New job (when no job last year)
4. No current year job; job last year
5. No job two consecutive years (longitudinal)

Table 37

Distribution of Respondents on Longitudinal Employment Status Recode by Year

I. Presurvey Employment (First job after completion of school any year before 1966)

ESR 0	Number	Percent
1. No change in employment	N/A	N/A
2. Changed employer since last year	N/A	N/A
3. New job	953	18.2
4. Out of labor force current year	4272	81.8
5. Out of labor force two consecutive years	N/A	N/A
	5225	100.0

II. 1966 - ESR 1

	Number	Percent
1. No change in employment	N/A	N/A
2. Changed employer since last year	896	17.1
3. New job whether or not held presurvey employment	2325	44.5
4. Out of labor force current year, but held job last year	2004	38.4
5. Out of labor force two consecutive years	N/A	N/A
	5225	100.0

III. 1967 - ESR 2

	Number	Percent
1. No change in employment	1352	25.9
2. Changed employer since last year	1104	21.1
3. New job when no job last year	677	13.0
4. Out of labor force	2092	40.0
	5225	100.0

IV. 1968 - ESR 3

	Number	Percent
1. No change in employment	1371	26.2
2. Changed employer since last year	1071	20.5
3. New job	696	13.3
4. Out of labor force	2087	39.9
	5225	100.0

V. 1969 - ESR 4

	Number	Percent
1. No change in employment	1428	27.3
2. Changed employer since last year	1034	19.8
3. New job	625	12.0
4. Out of labor force current year	676	12.9
5. Out of labor force two consecutive years	1462	28.0
	5225	100.0

Survey. A respondent falling into the fourth category in 1968 and in 1969 was assigned a value of five; the number of young men in this category represents nearly 30 percent--1462--in 1969. Most of this number represents attrition.

One interesting feature of the longitudinal employment recode is that it can be used to indicate movement in and out of the labor force as well as inter-survey employment changes. This was accomplished by multiplying the longitudinal employment status recodes by 10,000, 1000, 100, 10, and 1 and adding the results. A unique five-digit number results which indicates employment changes over the life of the Survey is shown in Table 38. The first digit represents the presurvey longitudinal employment status recode, the second the 1966 recode and so on. Use of the table can be illustrated by comparing the 357 respondents with a value of 43111 with the 69 with 32222. The former had no presurvey employment and held the same job for the entire four year span, while the latter were employed before the Survey and held a different job in each of the four Survey years. These respondents may have even held more jobs, since the Survey applies to the respondent's activities at the time of the Survey, and it is possible for a person to hold several jobs between the times the interviews were held.

The major reason for the development of the longitudinal employment status recode was to identify when a young man obtained a new job and therefore engaged in a new search. Every two or three response represents such a job. The distribution of job search methods

Table 38

Distribution of Respondents on Longitudinal Employment Status Recode for Entire Survey

Code		Number	Percent	Code		Number	Percent
1.	32111	230	4.4	34.	43111*	357	6.8
2.	32112	63	1.2	35.	43112	94	1.8
3.	32114	22	0.4	36.	43114	58	1.1
4.	32121	55	1.0	37.	43121	[illegible]	1.7
5.	32122	39	0.7	38.	43122	103	2.0
6.	32124	12	0.2	39.	43124	43	0.8
7.	32143	16	0.3	40.	43145	46	0.9
8.	32145	30	0.6	41.	43145	94	1.8
9.	32211	59	1.1	42.	43211	158	3.0
10.	32212	36	0.7	43.	43212	81	1.6
11.	32214	8	0.2	44.	43214	38	0.7
12.	32221	47	0.9	45.	43221	100	1.9
13.	32222	69	1.3	46.	43222	132	2.5
14.	32224	37	0.7	47.	43224	89	1.7
15.	32243	21	0.4	48.	43243	47	0.9
16.	32245	28	0.5	49.	43245	154	2.9
17.	32431	11	0.2	50.	43431	61	1.2
18.	32432	19	0.4	51.	43432	95	1.8
19.	32434	7	0.1	52.	43434	72	1.4
20.	32443	27	0.5	53.	43445	294	5.6
21.	32445	60	1.1	54.	44311	81	1.6
22.	34311	3	0.1	55.	44312	40	0.8
23.	34312	3	0.1	56.	44134	39	0.7
24.	34314	1	0.0	57.	44321	62	1.2
25.	34321	3	0.1	58.	44322	94	1.8
26.	34322	12	0.2	59.	44324	80	1.5
27.	34324	4	0.1	60.	44343	85	1.6
28.	34343	1	0.1	61.	44345	159	3.0
29.	34345	10	0.2	62.	44433	109	2.1
30.	34431	2	0.0	63.	44432	151	2.9
31.	34432	3	0.1	64.	44434	166	3.2
32.	34443	2	0.0	65.	44443	261	5.0
33.	34445	13	0.2	66.	44445	620	11.9
						5225	100.0

*Interpretation: 357 respondents had the following employment pattern

	Presurvey	Year			
		1966	1967	1968	1969
Longitudinal 43111 =	4	3	1	1	1

No presurvey job (4); new job in 1966 (3); same job in 1967-69 (1's).

for 1967 through 1969 Surveys changes when search methods for jobs held in a prior year are eliminated. The longitudinal recode can also be adapted to identify search methods used to find the first, second, and third jobs regardless of the year in which these occurred. Figure 18 indicates how the longitudinal recode was used to identify a respondent's first and second jobs.

Figure 18

Use of Longitudinal Employment Status Recode (LESR) to Identify First and Second Jobs

Presurvey Job LESR	1966 LESR	1967 LESR	1968 LESR	1969 LESR	Applies to
3	2 or 3				PreS & 66
3	1 or 4	2 or 3			PreS & 67
3	1 or 4	1 or 4	2 or 3		PreS & 68
3	1 or 4	1 or 4	1 or 4	2 or 3	PreS & 69
4	3	2 or 3			1966 & 67
4	3	1 or 4	2 or 3		1966 & 68
4	3	1 or 4	1 or 4	2 or 3	1966 & 69
4	4	3	2 or 3		1967 & 68
4	4	3	1 or 4	2 or 3	1967 & 69
4	4	4	3	2 or 3	1968 & 69

Characteristics of the Various Samples

The Entire Sample.--The next section is devoted to a cursory review of the characteristics of the 5225 respondents. It will be followed by an examination of the characteristics of respondents in a number of specially constructed subsamples. The discussion will focus solely on the raw or unweighted N which, as the reader will recall, contains a higher proportion of black youths--27.5 percent--than exists in the general population, because of intentional over-representation of blacks in the sample. Age ranges from 14 to 24 and is skewed slightly downward. This is shown in Table 39 which indicates that there are more than 600 respondents in the four lowest age categories compared with less than 400 in the oldest four.

Table 39

Age in 1966

Age	Number	Frequency
14	687	13.1
15	669	12.8
16	693	13.2
17	609	11.6
18	516	9.8
19	399	7.6
20	293	5.6
21	298	5.6
22	348	6.6
23	357	6.8
24	361	6.9
	5225	100.0

Average age = 18.0
Median age = 17.4

The proportion of blacks in each of these age groups declines as age increases, dropping from approximately 30 percent in the lowest ages to approximately 20 percent among those twenty-two and older.

As would be expected, slightly more than one half of the sample possess between nine and twelve years of education in 1966 as shown in Table 40. This increases to nearly 70 percent by 1969. A larger proportionate increase occurs among respondents with 13 or more years--from 16 to 30 percent. Among respondents with eleven years of school

Table 40

Education of Entire Sample 1966 and 1969

Years of Education	1966		1969*	
	Number	Percent	Number	Percent
8 or less	961	18.4	347	8.6
9	792	15.2	196	4.9
10	794	15.2	274	6.8
11	704	13.5	523	13.0
12	1152	22.0	1445	35.8
13	317	6.1	397	9.0
14	185	3.5	267	6.6
15	131	2.5	212	5.3
16	113	2.2	233	5.8
17 or more	76	1.5	138	3.4
Total	5225	106.0	4032	100.0

*Excludes respondents who dropped out of the Survey.

the proportion of blacks is about equal to their proportion in the sample. Below that point blacks are over-represented while whites are under-represented as shown in Table 41. Among those with greater than eleven years education the reverse is true.

Table 41

Race by Education in 1966 (Percent)

	Years of Education							
Race	8 and Fewer	9	10	11	12	13-15	16+	
Whites	56	67	68	70	79	88	94	3734
Blacks	44	32	31	29	20	11	6	1438
Total	953	783	784	696	1140	629	187	5172*

*There are 53 respondents classified as "other."

As the Survey progresses, an increasing number of respondents drop out because the Bureau of the Census interviewers cannot locate them, although other factors such as entrance into the military also play a part. This loss mounts from 435 respondents in 1967 to 1192 (23 percent) in 1969. This loss is not necessarily cumulative--those absent in 1967 are not necessarily absent in 1968 or 1969--since there is a small but noticeable return of respondents dropped in 1967, in 1968, and 1969 partly because of discharge from military service. While the number of white respondents who drop out of the sample far exceeds that of blacks, a slightly higher proportion of blacks drop out than do whites--26 versus 21 percent. Attrition is also slightly more pronounced among respondents in the lower end of the socio-economic scale measured by Duncan of respondent's father. As would be expected, the sample is older, better educated and more likely to be employed by the last available interview. The number of respondents employed or with a job but not at work remains remarkably stable numerically from 1966 to 1969--

3221, 3133, 3130 and 3087--although this represents an increasing proportion of the remaining respondents in the sample as illustrated in Table 42.

Table 42

Employment Status Recode 1966 to 1969

	1966	1967	1968	1969
Employed	3108	3041	3095 (3050)	2966
Employed but not at work	113	92	88	121
Unemployed	396 (492)*	326 (368)	228 (242)	240 (240)
Unable to work	5	9	15	9
At school	998	984	756	522
Out of labor force, other	73	81	117 (109)	143
Never work	628 (532)	257 (202)	95 (81)	26 (26)
Out of sample	000	435	907	1192

*Because of an error in the Bureau of the Census coding, some respondents who were unemployed were listed as having never worked. Probable changes, based on the work of the Population Studies Center at the University of Pennsylvania, are shown in parentheses. Since these categories were of little interest for the research being undertaken, these items were not corrected.

Occupational distributions for the entire sample are shown in Table 43. Responses may have been recorded for young men in other than the employed or unemployed categories but not in work categories, since questions on occupation and industry apply to the current or last job and may include jobs held by respondents in school. As far as

Table 43

Occupational Characteristics of Respondents in Selected Samples

Census Occupational Groups	Entire Sample		Sample A		Sample B		Sample B_1	
	1966	1969	1966	1969	1966	1969	1966	1969
0 Professional & technical	6.5	12.1	4.9	6.6	9.9	24.4	68.7	71.3
1 Managerial	1.9	4.9	2.3	5.5	1.1	3.4	4.5	10.1
2 Clerical	8.3	9.8	9.0	10.2	6.8	8.4	10.4	4.9
3 Sales	6.3	5.1	5.8	5.5	7.3	4.2	9.0	7.0
4 Craftsmen	10.6	12.7	12.7	16.0	6.4	5.5	3.0	2.7
5 Operative	22.4	25.9	25.1	29.8	16.8	17.5	0.7	0.9
6 Laborers, not farm/mine	19.1	14.9	16.0	13.3	25.4	18.4	0.7	1.2
7 Service	13.7	8.3	13.3	8.1	14.4	8.8	1.5	1.2
8 Farmers & farm managers	0.6	1.1	1.0	1.3	0.1	0.4	0.7	0.6
9 Farm laborers & foremen	10.4	4.5	9.7	3.7	11.9	2.7	0.7	0.0
Number	5225	3979	3051	2752	1498	1226	141	328

occupation is concerned, respondents tend to cluster in the craftsmen, operatives, and service categories in 1966. By 1969 the distribution spreads out somewhat with gains occurring in professional and managerial areas and losses in the operative and service headings. The distribution of respondents by industry for 1966 and 1969 can be found in Table 44. In both 1966 and 1969 nearly half of the respondents fell under the manufacturing or trade rubrics; except for the decline in young men in agriculture, proportionate changes between the first and the last survey were negligible. It should be noted that a substantial loss of respondents had occurred by 1969 which was not reflected in either the 1969 industry or occupation distributions.

The Cross-Sectional Samples.--The first of the specially chosen subsamples--A--consists of respondents who were employed and possess less than fifteen years of education. The second--B--contains respondents who are not employed or who had greater than fifteen years education. The third--B_1--is limited to employed respondents with fifteen or more years of education. The number of respondents in two surveys declines as they progress--3080 versus 2757 in Sample A compared to a reduction from 2145 to 1275 in B. In Sample B_1 it increases from 141 to 328. The young men in Sample B_1 are older than those in the other two as indicated by the median ages of 18.6, 16.0, and 23.0 years respectively in 1966. There is considerably more variation in racial composition which is in part the effect of education. The distribution is shown in Table 45.

Table 44

Industrial Characteristics of Respondents in Selected Samples

Census Industry Groups	Entire Sample		Sample A		Sample B		Sample B_1	
	1966	1969	1966	1969	1966	1969	1966	1969
0 Agriculture, forestry	12.5	6.1	11.9	5.6	13.7	7.2	2.1	1.8
1 Mining	0.5	0.8	0.5	0.9	0.5	0.6	0.0	0.0
2 Construction	8.3	10.3	7.2	10.7	10.6	9.1	2.1	2.4
3 Manufacturing	24.9	30.9	27.7	33.6	19.5	23.9	17.7	17.4
4 Transportation	4.2	6.4	4.7	7.2	3.0	4.2	0.7	1.5
5 Wholesale & retail trade	24.7	21.9	25.5	23.3	23.1	18.2	13.5	10.7
6 Finance, insurance	1.7	2.3	1.7	2.0	1.7	3.1	5.0	6.1
7 Business & repair	3.9	3.5	4.2	3.7	3.3	3.0	0.7	1.5
8 Personal services	5.2	1.8	5.1	2.0	5.5	1.3	0.7	0.3
9 Entertainment & recreation	2.9	1.5	2.5	1.2	3.6	2.4	0.7	0.6
10 Professional services	8.4	10.7	6.6	6.6	11.8	21.8	51.8	49.7
11 Public administration	2.9	3.8	2.5	3.2	3.7	5.4	5.0	7.9
Number	5225	3979	3051	2752	1498	1226	141	328

Table 45

Racial Distribution of Samples A, B, and B_1 in 1966 (Percent)

Race	Sample A	Sample B	Sample B_1
Whites	72.5	72.5	92.9
Blacks	27.5	27.5	7.1
Number	3051	1498	141

A similar variation is found in the Duncan Index of the respondent's father which has been used as an indicator of social class. Respondents in Sample A are more heavily concentrated in the first of the three categories (62.4 percent) than was true in the other two samples which contained 45.0 percent and 27.8 percent in the same category.

By their very definition those in the first and third were employed while respondents in the second were generally in school in 1966, although the proportion of enrolled respondents in Sample B declined substantially by 1969. The occupational and industrial distribution of those in Sample B mirrors that found in the entire Sample. There is more divergence in Sample B, however, shown in Tables 43 and 44. The only subsample with a sizable portion of respondents who were not in school was Subsample C. As would be anticipated, respondents falling in that group clustered in the professional and managerial occupation categories and under the professional heading in industry. The proportion of blacks in the two high-education subsamples was very small--9.5 percent for C and 8.3 percent for D--compared with 23 percent for subsample D_1.

The major differences in the occupational distribution of young men in the 1966 Survey are a higher proportion of professional and technical workers in the latter reflecting father's higher Duncan socioeconomic indexes and higher educational levels and a lower proportion in the craftsmen, operative and laborer categories. The table includes jobs held by enrolled respondents. These differences do not disappear over the life of the survey and are in fact widened. By 1969 those in Sample B are even more likely to fall into the craftsmen, operatives, and laborer rubrics. With respect to industry, respondents in Sample B were under-represented in manufacturing and wholesale and retail trade and over-represented in professional services. As was the case with occupation, differences in the industries of jobs held by respondents persists over the life of the Survey. Sample B_1, heavily weighted toward professional services, reflects the educational levels of this group of respondents and shows limited change between 1966 and 1969.

Longitudinal Sample.--As was indicated earlier, four longitudinal subsamples--Sample C, D, D_1 and E--were identified. The first three were used primarily for comparative purposes, while the fourth formed the basis for the longitudinal analysis. The four subsamples were composed of the following types of respondents: Sample C included those with greater than fifteen years education who were out of school at least three survey years; Sample D contained respondents with more than fifteen years schooling who were in school two or more years; and Sample D_1 consisted of young men with less than sixteen years education who were enrolled two or more years. These subsamples were intended as opposites of Subsample E, which was made up of respondents with fifteen or fewer years of education who were employed in at least three of the four Surveys. The nature of the criteria generally resulted in the exclusion of the nearly 1200 respondents who dropped out of the Survey.

None of the first three longitudinal subsamples was particularly large, varying in size from 323, 109, and 699 respectively. There is considerable variation in age, with medians for each ranging from 21.9, 19.4, and 15.2 years. The low level of Sample D_1 is not surprising given the enrollment and educational requirements for selection. Most of the other characteristics of these subsamples flow from this. For example, only 20.7 percent of Subsample C are in school compared with 89 percent of Sample D and 59.8 percent of D_1. Even by 1969, sizable portions of both D and D_1 are still enrolled. The Duncan index for respondents' fathers reflects the higher educational levels in Subsamples C and D, where a sizable proportion--40 and 50 percent--fell into the highest Duncan category. In comparison the scores of Subsample D_1 respondents were skewed downward (42 percent in the low category), reflecting in part the lower educational levels in this group. The only subsample with a sizable portion of respondents who were not in school was Subsample C. As would be anticipated, respondents falling in that group clustered in the professional and managerial occupation categories and under the professional heading in industry. The proportion of blacks in the two high education subsamples was very small--9.3 percent for C and 8.3 percent for D--compared with 23 percent for Subsample D_1.

Attention now turns to Subsample E, the basic longitudinal sample. Selection procedures employed were dictated by the desire to identify non-enrolled respondents who might have held several jobs during the life of the Survey, and therefore conducted several separate job searches. Fortunately, the number of respondents falling into this group--2051--was larger than the number in the other longitudinal subsamples. This permitted the application of a wider variety of statistical and tabular procedures than would otherwise have been possible.

The age distribution of Subsample E was 18.1 years, a trifle higher than that of the entire sample--17.4--and fell between that of Subsamples C and D. The proportion of blacks in Subsample E (28.6 percent or 738 respondents) approximates that of the entire sample. A slightly higher proportion of the young men falls into the lowest category on the Duncan of fathers' jobs because of the elimination of enrolled and highly educated respondents whose fathers tend to have higher scores on the index. Table 46 presents distributions in Duncan Scores for the entire sample and all the longitudinal subsamples. It shows that while nearly half of the respondents in Samples C and D were in the highest category, the same was true for only 13.4 percent in Subsample E.

Table 46

Duncan SEI of Respondent's Father for Longitudinal Subsamples (Percent)

Group	Breakpoints	Entire Sample	Sample C	Sample D	Sample D_1	Sample E
Lowest	(4-32)	58.5	29.3	28.2	47.0	65.4
Middle	(33-61)	20.2	28.3	19.4	21.7	16.2
Highest	(62-94)	21.2	42.3	52.4	31.3	13.6
Total		100.0	100.0	100.0	100.0	100.0

Median years of education in 1966 and 1969 (10.2 versus 11.7) mirror that found in the entire sample and are similar to that found in Subsample D_1. Almost 90 percent of the respondents in Sample E were employed in 1966, and over 95 percent by the time of the last survey. The same is true of respondents listed as unemployed and never worked. They start off at 6.7 percent in 1966 and decline to 2.3 percent by 1969. This is shown in Table 47.

Table 47

Employment Status in 1966 and 1969 for Subsample E

	Employed, Re-employed but Not at Work	Never Worked and Unemployed
1966	88.0	6.7
1967	93.3	5.7
1968	96.1	3.1
1969	95.2	2.3

The occupational and industrial distribution of respondents remains remarkably stable over the four survey years as shown in Tables 48 and 49.

Table 48

Occupational Distribution of Respondents in
1966 and 1969--Subsample E

Census Occupational Groups	1966	1969
0 Professional and technical	4.1	6.3
1 Managerial	2.5	6.2
2 Clerical	7.3	9.5
3 Sales	6.0	5.3
4 Craftsmen	14.5	17.4
5 Operatives and kindred	27.1	30.6
6 Laborer, not farm/mine	15.4	12.4
7 Service	11.3	6.8
8 Farmers and farm managers	1.3	1.6
9 Farm laborers and foremen	10.4	4.0
10 Armed forces		
Total	2051	100.0

Table 49

Industrial Distribution of Respondents in
1966 and 1969--Subsample E

Census Industry Groups	1966	1969
0 Agriculture, forestry	13.1	6.1
1 Mining	0.7	0.9
2 Construction	8.8	11.2
3 Manufacturing	30.0	35.5
4 Transportation	5.0	7.8
5 Wholesale and retail trade	23.7	22.1
6 Finance, insurance	1.2	2.3
7 Business and repair service	3.9	3.3
8 Personal services	4.3	1.7
9 Entertainment and recreation	2.1	4.9
10 Professional services	2.5	3.4
11 Public administration		
Total	2060	100.0

Chapter V

DESCRIPTION OF JOB FINDING TECHNIQUES

Job Finding Methods of Respondents

The following section will be devoted to a description of the techniques respondents used to find their first and their "current" jobs. The latter includes the last full or part-time job of two or more consecutive weeks held by respondents who are not employed at the time of the survey. This last job could have been held between 1961 and October 1966 in the case of the 1966 survey, or between October 15 of the preceding year and the date of the interview for the 1967 through 1969 surveys. Thus, a respondent who is in school or unemployed may have a response to the question on how he found his current job if he had prior work experience.

A major problem in presenting these frequency distributions is to determine the status of respondents to whom the job-finding question applies, and to determine whether young men who worked for the same employer in the prior year are included in the answer.

In all four years, more respondents indicate having used a technique to find their current - last job than were employed or employed but not at work, because of the inclusion of the respondent's last job if he was not currently employed. The proportion of respondents who utilized some method to find a current - last job is comparable in 1966 and 1967 and then drops off sharply after the 1967 survey. This is because of a change in the interview schedule in 1968 which excluded young men from the question on job finding if they were working for the same employer they listed in the preceding year. The number of different respondents replying to the job-finding question under a variety of circumstances is shown in Table 50. It presents the total number and proportion of respondents in each year who have a job-finding method listed, the number who held a new job or changed jobs and show a new finding method, and the number of employed respondents who were shown as having used a finding method. It is followed by Tables 51 and 52 which present simple frequency distributions for the various types of respondents outlined in Table 50.

Table 50

Number of Respondents Showing a Job-Finding Technique by Status and Survey Year

Type of Respondent	First Job	1966	1967	1968	1969
1. Number Employed Respondents or employed but not at work	N/A	3221	3133	3138	3087
2. Number in #1 showing a finding technique	N/A	3198	3126	1722	1626
3. Total Respondents showing a finding technique	953	4553	4287	2504	2220
4. Employed Respondents who held a new job or changed job using Longitudinal ESR	N/A	3221	1781	1336	1096
Total	5225	5225	4790	4318	4032

Table 51

Job-Finding Technique Used to Find First Post-School Employment If Job Started and Stopped Prior to the 1966 Survey

Method	Number	Percent
1. School Empl Svc	25	2.6
2. Public Empl Svc	41	4.3
3. Pvt Empl Svc	14	1.5
4. Direct Application	258	27.1
5. Newspapers	42	4.4
6. Friends-Relatives	516	54.1
7. Other	57	6.0
	953	100.0

Table 52

Job-Finding Techniques Used by Different Types of Respondents by Year

Method	1966					
	All Respondents Showing a Job-Finding Method		Job-Finding Techniques Used by Employed Respondents Only		All Respondents with New, Non-duplicated Job (LESR)	
	Number	Percent	Number	Percent	Number	Percent
School Empl Svc	270	5.9	193	6.0	193	6.0
Pub Empl Svc	138	3.0	107	3.5	107	3.5
Pvt Empl Svc	58	0.8	33	1.0	33	1.0
Direct Application	1055	23.2	767	24.0	767	24.0
Newspaper	180	4.0	148	4.6	148	4.6
Friends-Relatives	2379	53.2	1585	49.6	1585	49.6
Other	493	10.8	365	11.4	365	11.4
Number	4553	100.0	3198	100.0	3198	100.0
	1967					
School Empl Svc	275	6.4	195	6.2	126	7.1
Pub Empl Svc	135	3.1	100	3.2	65	3.7
Pvt Empl Svc	51	1.2	46	1.5	26	1.5
Direct Application	1110	25.9	864	27.6	476	26.8
Newspaper	175	4.1	147	4.7	84	4.7
Friends-Relatives	2168	50.6	1494	47.8	846	47.6
Other	375	8.7	280	9.0	155	8.2
Number	4287	100.0	3126	100.0	1778	100.0

Table 52--Continued

Method	All Respondents Showing a Job-Finding Method		Job-Finding Techniques Used by Employed Respondents Only		All Respondents with New, Non-duplicated Job (LESR)	
	1968					
	Number	Percent	Number	Percent	Number	Percent
School Empl Svc	195	7.8	146	8.5	99	7.6
Pub Empl Svc	79	3.2	56	3.3	45	3.3
Pvt Empl Svc	45	1.8	40	2.3	34	2.6
Direct Application	657	26.2	478	27.8	377	29.0
Newspaper	101	4.0	80	4.6	63	4.9
Friends-Relatives	1169	47.5	755	43.8	554	42.7
Other	257	9.5	167	9.7	128	9.9
Number	2504	100.0	1722	100.0	1298	100.0
	1969					
School Empl Svc	140	6.3	106	6.5	52	4.9
Pub Empl Svc	50	4.1	64	3.9	50	4.7
Pvt Empl Svc	36	1.6	31	1.9	22	2.1
Direct Application	496	22.3	368	22.6	240	22.5
Newspaper	114	5.1	86	5.3	65	5.9
Friends-Relatives	1050	47.3	729	44.8	470	44.1
Other	294	13.2	242	14.9	168	15.8
Number	2220	100.0	1626	100.0	1065	100.0

Visual inspection of the Tables indicates that the use of friends-relatives and direct application is consistently high in all survey years. Together they account for from less than 60% to over 80% of all job-finding techniques used. By 1969 use of the two informal methods has declined almost ten percentage points from the 80% levels found in the first job and in 1966. It should be noted that this change is paralleled by an increase in the "other" category. Another observation of interest is the moderate use of schools to find jobs. When interpreting the tables the reader must bear in mind that the question on job finding may apply to different respondents in each year. This helps explain why, for example, the use of schools does not decline as the survey progresses. Such a change would probably occur only if the same group of respondents were followed throughout the survey, since new labor force entrants who would be more likely to use this technique than already established workers.

Job Finding in the Subsamples

Attention now turns to the techniques used by respondents in the various subsamples. This is shown in the Tables 53 and 54. The most noticeable difference appears to be a trade-off between schools and friends-relatives which is found between subsample B and B_1 and between subsamples C and E. This may be because of industry recruiting on college campuses. A less sizable but still noticeable difference occurs in the use of the public employment service which is almost nonexistent in Samples B_1 and C. This probably related to educational levels and enrollment status, for the closer the respondent is to school the less likely he is to use that medium to find a job.

Longitudinal Patterns of Job Finding

The next section will explore patterns of job-finding over the course of the Survey and present the techniques respondents used to find the first, second, and third job listed in the Survey. Since the item on job finding

Table 53

Job-Finding Cross-sectional Subsamples by Year (Percents)*

Sample A
(Less than 15 years education employed in each separate year)

Method	1966	1967	1968	1969
School Empl Svc	5.5	6.1	7.3	5.6
Pub Empl Svc	3.4	3.5	3.5	4.3
Pvt Empl Svc	0.9	1.3	2.0	1.6
Direct Application	24.3	28.3	28.0	22.8
Newspaper	4.5	4.6	4.5	5.2
Friends-Relatives	50.4	47.9	45.5	46.8
Other	11.0	8.2	9.2	13.7
Number on which percentage based	3057	1861	1605	1473

Subsample B
(Greater than 15 years education or employed each survey year)

School Empl Svc	6.9	7.9	8.8	7.8
Pub Empl Svc	2.2	3.0	2.6	3.6
Pvt Empl Svc	0.7	0.9	1.4	1.6
Direct Application	20.8	21.6	23.0	21.4
Newspaper	2.9	2.7	3.1	5.0
Friends-Relatives	56.0	55.2	51.1	48.3
Other	10.6	5.2	8.6	12.3
Direct Application & Friends-Relatives	0.0**	1.2	1.4	0.0**
Number on which percentage based	1496	1271	899	746

Subsample B
(Greater than 15 years education and employed each survey year)

School Empl Svc	18.4	18.2	24.8	15.8
Pub Empl Svc	1.4	2.7	0.0	0.7
Pvt Empl Svc	4.3	5.5	6.8	4.6
Direct Application	16.3	25.5	23.9	21.1
Newspaper	7.8	5.5	6.0	5.9
Friends-Relatives	31.2	24.5	21.4	25.7
Other	20.6	17.3	16.2	26.3
Direct Application & Friends-Relatives	0.0	0.9	0.9	0.0
Number on which percentage based	141	110	117	152

*Respondents in 1967-1969 who held same job as last year are excluded.

**The combination of Direct Application and Friends-Relatives is not available for every year.

Table 54

Job-Finding Longitudinal Subsamples by Year (Percents)

Subsample C

(Greater than 15 years education and employed)

Method	1966	1967	1968	1969
School Empl Svc	19.5	23.7	19.0	12.5
Pub Empl Svc	0.8	1.2	0.0	1.3
Pvt Empl Svc	3.2	3.2	6.0	5.0
Direct Application	16.3	22.9	24.0	20.0
Newspaper	6.8	3.6	9.0	6.3
Friends-Relatives	36.7	29.2	23.0	27.5
Other	16.7	14.6	19.0	27.5
Number on which percentage based	251	249	100	80

Subsample D

(Greater than 15 years education in school two or more years)

Method	1966	1967	1968	1969
School Empl Svc	12.5	10.5	22.0	17.3
Pub Empl Svc	2.9	1.2	1.2	0.0
Pvt Empl Svc	0.0	0.0	0.0	4.0
Direct Application	20.2	20.9	24.4	22.7
Newspaper	4.8	3.5	3.7	4.0
Friends-Relatives	51.9	53.5	39.0	34.7
Other	7.7	10.5	9.8	17.3
Number on which percentage based	104	86	82	75

Table 54(Continued)

Subsample D

(Less than 15 years education in school two or more years)

Method	1966	1967	1968	1969
School Empl Svc	6.3	6.4	8.0	7.4
Pub Empl Svc	1.9	2.7	2.0	2.3
Pvt Empl Svc	0.2	0.2	0.4	0.6
Direct Application	19.0	19.4	22.7	20.9
Newspaper	1.9	2.7	2.5	5.2
Friends-Relatives	57.4	63.1	55.0	54.2
Other	13.3	5.7	9.4	9.5
Number on which percentage based	573	566	551	517

Sample E

(Less than 15 years education employed three or more years)

School Empl Svc	4.3	3.7	6.4	3.3
Pub Empl Svc	3.8	3.8	3.6	5.1
Pvt Empl Svc	1.0	1.4	2.5	2.1
Direct Application	24.3	28.0	30.2	24.1
Newspaper	4.4	4.9	4.5	5.5
Friends-Relatives	51.1	49.0	43.7	45.2
Other	11.1	9.2	9.1	14.6
Number on which percentage based	2049	2104*	972	938

*Includes respondents holding same job in 1966.

applies to the job held at the time of the interview regardless of the length of time held, or to the last job if the respondent was not currently employed, some young men may have held one or more jobs in the interim between the surveys. Thus, the job changing of the more mobile respondents may be somewhat understated.

As was the case with the employment status recode, identification of patterns of search required programming gymnastics. Using the longitudinal employment status recode, a special search variable was created which showed the methods used by respondents in each year who had a new or nonduplicate job (LESR 3 or 2). The finding methods in each year were then multiplied by 1000, 100, 10, and 1 and added together in an attempt to generate a unique four digit number for each pattern of search over the four year time span. For example, the value 0100 indicates no job in 1966, use of school in 1967, and either no change of job or not employed in 1968 and 1969. The value 4444 indicates at least a new job in each year, all found by use of friends or relatives. The seven methods plus a zero in each category in each year generated 4096 combinations for the four years which was rather unwieldy from an analytic standpoint. To reduce the combinations to a more manageable level, individual techniques in each of the four years were grouped into formal, informal and other. The former included school, public and private employment services, and newspapers. The latter was composed of direct application, friends and relatives, and use of both simultaneously. The "other" category, which includes various combinations, was left separate since it was unclear what this category represented. The number of respondents in each of these grouped categories is shown in Table 55. Slightly more than 250 four digit combinations resulted from the multiplication and addition of the values of the grouped methods. An attempt to include the first post-school job failed because of the large number of combinations which could not be recoded with the statistical package being used.

Table 55

Grouped Finding Methods of Respondents with New Non-duplicated Jobs by Survey Year

		Year			
	Methods	1966	1967	1968	1969
0.	No job/same job/out of the survey	2027	3447	3513	3611
1.	Formal	481	301	322	286
2.	Informal	2352	1322	1224	1090
3.	Other	365	155	166	238
	Total	5225	5225	5225	5225

Finding methods from the four years were recoded into eight homogeneous categories in an attempt to differentiate major patterns of finding over the life of the survey which then could be cross-tabulated against background and job characteristics. The major rubrics used were formal only (one job), informal only (more than one job), mixed (at least two jobs), other and formal, other and informal, other only and no job. The number of respondents in each of these categories for the entire sample is shown in Table 56. When used in the analysis this variable is collapsed into informal, formal and mixed. Those in the "other" category were dropped.

Table 56

Longitudinal Patterns of Job-Finding 1966 - 1969

		Entire Sample	
		Number	Percent
1.	Formal only (one job during survey)	325	7.1
2.	Formal only (more than one job)	104	2.3
3.	Informal only (one job)	1254	27.5
4.	Informal only (more than one job)	1266	27.7
5.	Mixed (More than one job)	650	14.2
6.	Other and formal	256	5.6
7.	Other and informal	441	9.7
8.	Other only	270	5.9
0.	None	659	0.0
	Total	5225	100.0

Given the distribution of job-finding techniques in individual survey years, the predominance of the informal methods is not unexpected. For analytical purposes the other and formal category will be grouped with the formal only to obtain the maximum number of cases.

An additional component of the descriptive phase of the analysis concerned comparisons of the techniques respondents used to find their first, second and third jobs. Here again the longitudinal employment status recode was utilized to ensure the selection of nonduplicated jobs of employed respondents. The programming task involved determining all the possible combinations related to the importance of early jobs in the transition from school. It should be noted that respondents could conceivably have jobs between the first post-school job and the 1966 Survey as well as between the time of each survey interview. As a result findings must be interpreted with some caution. The first survey job listed below in Table 57 refers to the first pre-survey job or a job in 1966, 1967 or 1968, while the second could occur any time between 1966 and 1969. Cross-tabulations of the first and second job indicate the number of respondents who used the same method to find the first and second jobs. These percentages appear along the diagonal in Table 58. Collapsing job finding in formal, informal and other produces data shown in Table 59.

Table 57

Job-Finding Techniques Used to Find First and Second Listed Job in any Two Years Starting with Presurvey Job

	First Job		Second Job	
Method	Number	Percent	Number	Percent
1. School Empl Svc	190	6.6	200	6.8
2. Public Empl Svc	90	3.0	119	4.1
3. Pvt Empl Svc	37	1.3	55	1.9
4. Direct Application	717	24.2	781	26.7
5. Newspapers	107	3.6	167	5.7
6. Friends-Relatives	1537	52.0	1320	45.1
7. Other	273	9.2	287	9.8
Total	2957	100.0	2929*	100.0

*Difference represents respondents who showed a first but not a second method.

The percentage distribution of methods used to find the first two listed jobs is remarkably similar. There is no question that a much higher percentage of the respondents -- 58.2 percent -- used friends and relatives to find the first and second job for which survey information is available. (This is shown in Table 58.) A much smaller proportion -- 27.7 -- used direct application to the employer to find both jobs. This is about the same return rate found with private employment services and slightly higher than that for schools, although the number of respondents who used these consecutively is considerably smaller. Grouping the finding methods into formal, informal, and other generates the somewhat simpler table. Nearly 60 percent used informal methods for both, while only 25 percent used a formal method to find both or either the first or second job. Of these 25 percent, one fifth -- 5.2 percent of the total -- used a formal method to find both jobs.

This descriptive procedure was also applied to respondents showing a distinct first, second, and third job during the survey; the results are shown in Tables 59 and 60 which include many of the same respondents of the three had two jobs. There were ten possible combinations of three nonduplicated jobs in the five time periods for which job finding data was available -- first presurvey job, 1966, 1967, 1968, and 1969. The first combination consists of the first after school, the 1966 and the 1967 job. The last is composed of the 1967, 1968, and 1969 jobs. Comparisons of the first and second jobs of respondents with three jobs are shown in Table 61. They indicate that recurrent use among friends and relatives is consistently high.

Some interesting trends appear when finding methods are grouped into formal, informal, and other and when the second and third job are cross-tabulated controlling for the first job. Among respondents with three search techniques, those who used a formal method to find their first job were more likely to use a formal method to find either or both

Table 58

Job-Finding Technique in First Survey Job by Technique Used to Find Second Survey Job

Method	Ungrouped						
	School	Pub	Pvt	D.A.	Newsp	Fr-Rel	Other
School Empl Svc	20.9	7.6	7.5	6.0	7.3	4.4	8.4
Pub Empl Svc	2.6	14.3	1.9	3.1	3.0	2.2	3.1
Pvt Empl Svc	1.5	0.0	18.9	0.8	1.8	0.7	1.7
Direct Application	23.0	21.0	17.0	27.7	23.6	23.0	26.6
Newspaper	4.1	6.7	5.7	3.0	13.3	2.7	2.1
Friends-Relatives	39.8	47.1	41.2	49.3	43.0	58.2	47.2
Other	8.2	3.4	1.9	10.1	7.9	8.8	10.8
Number	196	119	53	779	765	1314	286
Significance	$x^2(355^{\underline{W}}36$ D.F.) = .0001 v^2 = .14						

Method (First)	Grouped		
	Method (Second)		
	Formal	Informal	Other
Formal	5.2	7.9	1.5
Informal	12.0	57.2	7.2
Other	1.2	6.7	1.1
Number	533	2093	286
Significance	$x^2(104^{\underline{W}}4$ D.F.) = .0001 v^2 = .13		

Table 59

Job-Finding Methods of Respondents with Three Listed Jobs

Method	First Job Number	First Job Percent	Second Job Number	Second Job Percent	Third Job Number	Third Job Percent
School Empl Svc	68	5.2	77	5.7	51	4.0
Pub Empl Svc	39	3.0	56	4.2	52	4.1
Pvt Empl Svc	15	1.1	25	1.9	28	2.2
Direct Application	334	25.6	393	29.2	347	27.4
Newspaper	51	3.9	84	6.2	70	5.5
Friends-Relatives	698	53.5	597	44.4	561	44.3
Other	100	7.7	113	8.4	157	12.4
Number	1305	100.0	1345	100.0	1266	100.0

Method	First Job Number	First Job Percent	Second Job Number	Second Job Percent	Third Job Number	Third Job Percent
Formal	173	13.3	242	18.0	201	15.9
Informal	1032	79.1	990	73.6	908	71.7
Other	100	7.7	113	8.4	157	12.4

Table 60

How Respondents Using Formal and Informal Methods to Find Their First Jobs Found Their Next Two Jobs

Method Used to Find Second and Third Jobs	Formal First Job Percent	Informal First Job Percent
Formal and Formal	14.2	3.8
Formal and Informal or Informal and Formal	39.3	16.7
Informal and Informal	29.7	60.8
Other	16.9	18.9
Number	155	957

Table 61

Job Finding Techniques Used to Find First and Second Job if Respondent Had Three Jobs

Method (First)	Ungrouped						
	Method (Second)						
	School	Pub	Pvt	D.A.	Newsp	Fr-Rel	Other
School Empl Svc	24.7	1.9	12.5	3.7	6.3	4.0	2.8
Pub Empl Svc	4.1	14.8	4.2	2.9	2.5	1.9	2.8
Pvt Empl Svc	1.4	0.0	29.2	0.5	2.5	0.3	0.9
Direct Application	23.3	16.7	16.7	28.7	24.1	24.1	33.0
Newspaper	4.1	7.4	4.2	2.9	12.7	2.9	2.8
Friends-Relatives	37.0	53.7	33.3	50.5	43.0	61.0	46.8
Other	5.5	5.6	0.0	10.8	8.8	5.7	11.0
Number	73	54	24	380	79	517	109
Significance			$x^2(313\underline{w}36 \text{ D.F.}) = .0001$ $v^2 = .20$				

Method(First)	Grouped		
	Method (Second)		
	Formal	Informal	Other
Formal	5.3	7.0	0.8
Informal	11.3	61.1	6.7
Other	1.1	5.7	0.9
Number	230	952	109
Significance	$x^2(71\underline{w}4 \text{ D.F.}) = .0001$ $v^2 = .17$		

their second and third jobs than were those whose first job was found through an informal one. For example, 14 percent of those starting with a formal technique stayed with it for the next two jobs compared with only 4 percent of those beginning with an informal method. This is shown in Tables 63 and 64. Even more revealing is the number who used a formal technique to find either their second or third job. Half of those starting with a formal technique used it again compared with only 17 percent of those who started with an informal one. The formal group was also much less likely to use informal techniques to find their next two jobs. Thus, it appears that users of formal techniques to find first jobs are more likely to return to other formal techniques than are those who used informal techniques to find their first job.

A second measure of longitudinal job finding was also created to compare the two basic longitudinal measures. One of the problems with the first measure, which identified respondents using formal, informal or mixed methods during the course of the Survey, was that it included respondents with anywhere from one to four new jobs. An alternative way to determining longitudinal finding patterns is to examine respondents identified as having first, second and third discrete jobs to ascertain whether they relied solely on a particular method or combination of them. When analysis was restricted to respondents in Sample E, some 773 youths fell into one of the five patterns uncovered. These distributions are shown in Table 65 and include youth using formal or informal channels to find all three jobs, those moving from formal to informal or informal to formal and those utilizing a combination of formal, informal and other techniques.

The First Post-School Job

The last descriptive phase of the analysis concerns the attempt to identify how respondents found their first post-school job. It was

Table 62

How Respondents Using Formal and Informal Methods to Find Their First Jobs Found Their Next Two Jobs

Method Used to Find Second and Third Jobs	Formal First Job Percent	Informal First Job Percent
Formal and formal	14.2	3.8
Formal and informal or formal and formal	39.3	16.7
Informal and informal	29.7	60.8
All combinations of other	16.9	18.9
Number	155	957

Table 63

Finding Method Used for Second of Three Jobs by Method Used for Third of Three Jobs for Respondents Using Formal Technique to Find First Job

Method	Formal	Informal	Other	
Formal	14.2	21.9	3.9	
Informal	17.4	29.7	6.5	
Other	0.0	3.9	2.6	
Number	49	86	20	155 100.0
Significance	$x^2(10^{\underline{W}}4$ D.F.$) = .0001$ $v^2 = .18$			

Table 64

Finding Method Used for Second of Three Jobs by Method Used for Third of Three Jobs for Respondents Using Informal Technique to Find First Job

Method	Formal	Informal	Other	
Formal	3.8	8.4	2.3	
Informal	8.3	60.8	8.3	
Other	1.5	5.5	1.3	
Number	129	115	113	957 100.0
Significance	$x^2(33^{\underline{W}}4$ D.F.$) = .0001$ $v^2 = .13$			

Table 65

Longitudinal Finding Patterns for First, Second and Third Job Found

Pattern	Number	Percent
1. Formal Only 3 jobs	18	2.3
2. Informal Only 3 jobs	503	65.1
3. Formal to Informal	48	6.2
4. Informal to Formal	79	10.2
5. Mixed	125	16.2
Total	773	100.0

hoped that this group of respondents might serve as the basis for much of the subsequent analysis, but for reasons that will soon be described, this was not possible. There are six places on the four surveys which indicated whether the job under consideration was the first one. Three of these occurred in 1966. The first applied to slightly more than 950 respondents who had started and stopped their first job before October of 1966. The next two were found in the item on the industry of first post-school job. It had a special check which indicated whether the job was the same as that held during the last year of high school or the same as the current job. There were 219 respondents in the former and 672 in the latter. In addition, each individual survey after 1966 had an item indicating whether the job held in that year was the first job since going to school. This included 173 respondents in 1967 and 1968 and 164 in 1969. The job-finding patterns of each of these groups of respondents is shown in Table 66.

While identifying respondents in each of these categories was a relatively simple procedure, combining them into a single measure turned out to be a relatively complicated task because of overlap caused by inaccurate responses. For example, some respondents who indicated that the job held in 1968 was their first job were also listed as having been employed in 1966 or 1967. Another indicator of inconsistency was that

Table 66

Job-Finding Technique Used for First Post-School Job (Percents)

Method	First Job if Started and Stopped Before 1966	First Job if Same as Job Held in Last Year of High School	First Job if Same as Current Job in 1966	First Job 1967	First Job 1968	First Job 1969	Total	
							No.	Percent
School Empl Svc	2.6	3.2	5.5	5.2	8.7	7.3	98	4.3
Pub Empl Svc	4.3	0.9*	4.2	3.5	4.0	4.9	86	3.8
Pvt Empl Svc	1.5	0.5*	1.5	3.5	2.9	2.4	39	1.7
Direct Application	27.1	33.3	20.4	28.9	27.7	20.1	562	24.7
Newspaper	4.4	3.2	3.3	2.3*	2.9	4.3	82	3.6
Friends-Relatives	54.1	50.7	50.6	47.4	45.1	48.2	1129	49.6
Other	6.0	8.2	14.6	9.2	8.7	12.8	281	12.3
Number	953	219	672	173	173	164	2277	100.0

*Less than 5 cases

the occupation listed for these first jobs did not match those found in an item in 1969 on the occupation of the first job. Programming techniques were used to eliminate duplication, but this did not resolve the inconsistencies. The only conclusion that could be drawn was that the term "first post-school job" may be an ambiguous concept to some youth, particularly given the movement back and forth between schools and the labor force that is so prevalent in the United States. Future efforts of this kind will have to give greater attention to the circumstance surrounding the first job, and obtain more detailed information from the respondent about where he fits. It had been hoped that the 2277 respondents identified in this procedure could be used as the basis of the analysis, but given the questionable nature of the data this was thought unwise. Some data from this group of respondents, particularly that relating to occupation, industry and age at first job, will be referred to at subsequent points.

CHAPTER VI

FINDINGS CONCERNED WITH RESPONDENT CHARACTERISTICS

The findings section is divided into two chapters. Following an introduction which reviews special features of some of the variables under study, and the analytic procedures employed, Chapter VI examines the influence of certain basic personal characteristics -- age, race, social class and education. This will be followed by a review of the influence of a series of situational, school-related and background items on job finding behavior. Chapter VI seeks to determine whether job-finding channels are in fact related to the type and quality of jobs found. Such features as occupation, industry, hourly rate of pay, labor market participation and job quality will be explored.

Introduction

Discussion of results with regard to job finding will generally be performed on two different groups of respondents, depending on whether the longitudinal or cross sectional sample was chosen. The first and most often used group - Sample A - treats each survey as a unique entity and will examine employed respondents with fifteen or less years of education. There are four separate Sample A's, one for each year. The latter - Sample E - focuses on young men with fifteen or less years of education who were employed three or more of the survey years.

Job finding techniques will be run separately and grouped into formal, informal, and other. Two special longitudinal job-finding variables which identify patterns of finding used over the four survey years will also be utilized. They are constructed in such a way that a respondent who held the same job in two or more years will be counted only once. The primary longitudinal measure contains three categories: respondents using formal only or formal and an "other" technique, those using informal only or informal and other, and young men who mixed formal and informal methods. The few respondents relying solely on the "other" techniques were eliminated. The alternate measure divides respondents with three jobs into those using only formal or informal, those moving from formal to informal or informal to formal and those using mixed patterns.

There are several peculiar features of the analysis which deserve mention. When using the cross-sectional sample, the data applies to a different group of respondents each survey year, although the results from survey to survey should be comparable since the same respondents may appear at different points. This has both advantages and disadvantages. On the negative side, it requires four separate analyses, one for each year, which makes the analysis somewhat cumbersome and is not technically longitudinal. On the other hand, it permits verification of findings made in one year, especially when the number of respondents upon whom the conclusion is drawn is relatively small. This protects the researcher from quirks or idiosyncracies in the experiences of respondents in one year or from abnormalities in the selection procedures.

The nature of the variables under study has a large bearing on the type of analytic procedures utilized. The reader will recall that variables could generally be separated into those which were static and those which were dynamic in nature. The former contain two different subtypes: the first are permanent characteristics such as race which do not vary from year to year, while the second consist of quasi-static variables, particularly knowledge and attitudinal measures which were collected in one survey year and might have differed if they were obtained in another. Dynamic items also consist of two types of variables, those which can be added -- e. g. weeks unemployed -- and noncumulative ones such as education or enrollment in a training course, which are not additive.

True static variables can legitimately be cross-tabulated with job-finding characteristics in each survey year. Thus, four separate cross-tabulations between race and job finding were made, one for each year. Cross-tabulations for job finding were conducted in each survey to ensure that all eligible respondents were included. The nature of Sample A meant that young men who were not employed or had greater than 15 years education were eliminated from the analysis for that year. Thus, each cross-tabulation includes a different combination of respondents from those appearing in past years. This procedure could not always be legitimately conducted with quasi-static measures. While such measures could be cross-tabulated with labor force data such as job finding in the year data was collected, cross-tabulation of these items with job finding in another year was suspect, since the two measures are not temporally synonymous. For example, what is the meaning of a table cross-tabulating job finding technique in 1969 with respondents knowledge of the world of work collected in 1966 if that might have changed in the intervening years?

The total N will also be subject of sizable variation depending on the nature of the variables being examined. The number of respondents available for analysis purposes each year is reduced by the requirement they be employed and have 15 or less years of education. After 1966 the N is further reduced by attrition from the panel. A third source of loss is incomplete responses. While age and race are always known, a number of other variables such as social class may not be available for all the members of the sample.

A further problem was the uneven distribution of the search methods, which were heavily concentrated in the employer directly and friends-relatives category. This frequently reduced the number of respondents using formal methods, particularly among black respondents. Since no attempt is being made to generalize the results to the universe from which the sample was drawn, results from cells with a small number of cases will be used although conclusions based on five or less respondents will be indicated in the tables.

A note on statistical procedures seems in order. No conceivable rationale could be found for ranking job-finding techniques into a hierarchy to permit utilization of ordinal level measures of association and significance such as gamma or tau.[1] The nominal nature of job finding necessitated the use of chi square for determining significance (which is not always satisfactory), given its lack of power, its sensitivity to sample size, and difficulty measuring association (relationships can be significant yet only weakly associated).[2]

One of the stickiest questions regarding use of chi-square tests is the size of the sample and the minimum size of the expected frequencies in each cell. The former presents few problems in this exegesis, because of the large size of the sample - most tables include a minimum of at least three hundred cases. The issue of minimum expected frequencies is of greater concern, partly because of the peculiar distribution of finding methods which are heavily concentrated in the informal channels. Use of some of the formal techniques, especially private employment agencies, is pathetically small. The conservative rule of thumb, as stated by Hays, is that "for tables with more than a single degree of freedom, a minimum expected frequency of 5 can be regarded as adequate."[3] For a small 2 X 2 table, the problem of minimum expected frequencies is often handled by correcting for continuity. Such corrections are much more difficult with larger tables, such as those found in this analysis.

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[1] Hubert M. Blalock, Jr., Social Statistics (New York: McGraw Hill, 1972), pp. 295-311.

[2] *Ibid.*, 275-86.

[3] William Hays, Statistics for the Social Sciences (New York: Holt, Rinehart and Winston, 1973), p. 736.

In this circumstance Blalock recommends either collapsing the tables -- provided this can be theoretically justified -- or using chi-square tests without correction. He states, "if the number of cells is relatively large and if only one or two cells have expected frequencies of 5 or less, then it is generally advisable to go ahead with chi-square tests without worrying about such corrections."[1] Hays is somewhat more specific commenting that "if the number of degrees of freedom is large, then it is fairly safe to use the x^2 test for association even if the minimum expected frequency is as small as 1, provided that there are only a few cells with small expected frequencies (such as one out of five or fewer)."[2]

Other analyses of job search have utilized multiple regression analysis in an attempt to uncover the "true" nature of relationships between variables under consideration.[3] Stevens notes that by their very nature two-way cross-tabulations often ignore the effects of other significantly related variables, thus creating a lack of confidence in the presence or absence of relations between dependent and independent variables. He maintains that the application of multiple regression permits measurement of the "net" effect of one explanatory variable on its dependent counterpart while holding the effect of extraneous variables constant. Stevens, it should be noted, was using dependent variables - job finding success, duration of unemployment or number of firms - which were either continuous in nature or were Aristotelian dichotomies. In the first the value of "1" is assigned to success and "0" for failure, and the estimated relation can be explained as the probability of having found a job.[4]

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[1] Blalock, 286.

[2] Hays, 736.

[3] Stevens, Supplemental Labor Market Information..., p. 129.

[4] Fred N. Kerlinger and Elazar J. Pedhazar, Multiple Regression in Behavioral Research (New York: Holt, Rinehart and Winston, 1973).

He states that for

> . . . continuous variables the (partial regression) coefficient is the change in the probability of job finding success associated with a one-unit change in the dependent variable. For qualitative variables it is the difference between the element under consideration and the excluded element.[1]

The dependent variable under consideration in this analysis were in fact seven separate dichotomous variables, which complicates application of such a technique. Further, multiple regression could not provide measures of the interaction among the seven. An attempt was made to use canonical correlation to circumvent this problem, and a discussion of the procedure and its results can be found in the appendix. Because of problems with multiple regression, a more traditional tabular type of analysis was employed where the effects of several possible intervening variables would be determined by controlling for a third variable. This is the type of technique employed in The American Soldier and is also examined by Rosenberg, Selvin, and Hyman.[2] In most cases two-way cross-tabulations will be run between job finding and some explanatory variable controlling for age, race, education and social class.

Rosenberg discusses a procedure for conducting an analysis which helped focus the analytic procedures being described. He maintains that once it has been determined that the relationship between dependent and independent variables are asymmetrical or unidirectional as opposed to symmetrical or reciprocal, the researcher must search for possible intervening variables which might influence the relationship or lack of it between dependent and explanatory items.

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[1] Stevens, Supplemental Labor Market Information, 149.

[2] Robert K. Merton and Paul F. Lazarsfeld (ed.) Continuities in Social Research: Studies in the Scope and Method of "The American Soldier" (Glencoe: Free Press, 1950); Morris Rosenberg, The Logic of Survey Analysis (New York: Free Press, 1967); Hyman; and Hirschi and Selvin.

Basic relationships may be influenced by extraneous variables, variables which are component, intervening, suppressor or antecedent, or may operate only under specified conditional situations, what Hyman calls specification.[1] Grouping finding techniques into formal, informal, and other will provide relatively small tables - 6 to 9 cells - where the chi square statistic has meaning. More difficulty occurs when finding techniques are disaggregated, since a larger number of results will increase the possibility of zero cells. Furthermore, even though differences exist between the seven search methods and an independent variable, it may not be clear which of the methods is responsible for the differences.

Major Personal Variables

Race.-- Blacks and whites in sample A show similar use of most finding methods with the exception of the public and private employment service and newspapers. This is shown in Table 67.[2] The significance of differences between racial groups within individual channels cannot necessarily be ascertained from these tables. It should be noted that blacks show only a minimal use of private employment agencies during the first two survey years.

Grouping job finding into formal, informal, and other categories does not basically alter the lack of relationships, although slight differences occur between blacks and whites in the use of formal methods in 1966 and 1969. Two of the four tables held no statistically significant differences, and the two that did probably reflect differences in the "other" category (See Table 68).

Since several hypotheses dealt with the possible masking effect of social class by race, the next step involved disentangling the

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[1] Rosenberg, 202-4.

[2] Only selected tables are included in the text. The remainder can be found in Appendix K.

Table 67

Job-Finding by Race 1966 - 1969

Method	1966		1967		1968		1969	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
School Empl Svc	5.6	4.6	5.3	7.6	7.0	8.1	5.9	4.9
Pub Empl Svc	2.8	5.2	2.8	5.4	2.8	4.9	2.9	7.5
Pvt Empl Svc	1.1	0.2*	1.5	0.7*	1.8	2.4	1.9	1.1
Direct Application	25.1	22.4	28.9	27.4	29.9	24.4	21.6	25.7
Newspapers	4.7	4.0	5.1	3.4	4.9	3.9	5.8	3.5
Friends-Relatives	48.3	56.1	48.1	47.8	44.5	47.2	46.1	47.8
Other	12.4	7.4	8.5	7.6	9.1	9.2	15.7	9.5
Number of Cases	2202	8402	1309	536	1085	509	1012	452
Significance	x^2(40$\underline{\text{w}}$6 D.F.) =.0001 v^2 = .11		x^2(16$\underline{\text{w}}$6 D.F.) = .01 v^2 = .09		x^2(10.5$\underline{\text{w}}$ 6 D.F.) = .10 v^2 = .08		x^2(32$\underline{\text{w}}$6 D.F.) = .0001 v^2 = .14	

*less than 5 cases

Table 68

Job-Findings (Grouped) by Race 1966 - 1969

Method	1966		1967		1968		1969	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Formal	14.2	14.2	14.6	17.2	16.5	19.3	16.5	17.0
Informal	73.4	78.5	76.9	75.2	74.4	71.5	67.8	73.5
Other	12.4	7.4	8.5	7.6	9.1	9.2	15.7	9.5
Number of Cases	2202	840	1309	536	1085	509	1012	452
Significance	x^2(15$\underline{\text{w}}$2 D.F.) = .0003 v^2 = .07		x^2(2.0$\underline{\text{w}}$2D.F.) = .26 v^2 = .03		x^2(1.9$\underline{\text{w}}$2 D.F.) = .38 v^2 = .03		x^2(10$\underline{\text{w}}$2D.F.) = .006 v^2 = .08	

effects of the two. This was done in two phases. In the first, job-finding was cross-tabulated against social class and the results of these cross-tabulations are shown in tables 69, 119 and 120. There is no doubt that social class has a larger impact on job finding than does race, especially where the alternate indicator based on respondent characteristics is utilized. Using the alternative measure differences between job-finding and social class are significant at the .001 level in every survey. When finding methods are examined individually, differences occur in those of schools, private employment service and friends-relatives. For the first two, higher class is associated with increasing use, while in the latter it is linked to a sharp decline. Differences are far more pronounced when the alternate indicator of social class, based on respondent characteristics, is used. One of the obvious benefits of this measure is a larger N for blacks in the upper category which improves the reliability of the data.

In the second phase of this section of the analysis, finding methods were cross-tabulated against race controlling for class to determine if the differences held equally for both racial groups. Again both social class indicators were utilized. Examination of the results, shown in tables 121 thru 124, indicate race exerts an influence primarily on the use of the public employment service regardless of social class in nearly every survey year. The alternate indicator suggests that among respondents in the lower half, use of schools is comparable. This is not true in the second, where blacks show considerably higher use of this channel in three surveys than do whites. Blacks also tend to rely less heavily on newspapers regardless of social class group. The use of friends and relatives is nearly comparable for blacks and whites within nearly every social class group.

Age.-- One critical intervening variable was age. In cross-tabulating this variable, respondents were grouped into ages 14 to 17,

Table 69

Job-Finding (Ungrouped) by Social Class Based on Respondent Characteristics 1966 - 1969 (Percents)

Method	1966		1967		1968		1969	
	Bottom Half	Top Half	Bottom Half	Top Half	Bottom Half	Top Half	Bottom Half	Top Half
School Empl Svc	3.6	9.1	5.4	7.5	6.2	11.5	4.8	7.8
Pub Empl Svc	3.2	3.8	3.8	3.4	3.1	4.1	4.6	3.5
Pvt Empl Svc	0.4	2.1	0.6	2.7	1.2	3.3	0.6	4.5
Direct Application	23.4	25.0	26.7	31.0	28.4	27.7	23.8	20.1
Newspapers	4.0	5.5	4.1	6.3	4.2	5.5	5.2	5.3
Friends-Relatives	54.0	43.4	51.9	39.8	48.3	37.3	49.2	39.6
Other	11.4	11.4	8.5	9.3	8.6	10.7	11.8	19.3
Number	1556	795	986	442	973	365	1098	374
Significance	x^2(61 $\underline{w}$ 6 D.F.) = .0001 v^2 = .16		x^2(27 $\underline{w}$ 6 D.F.) = .0002 v^2 = .13		x^2(26 $\underline{w}$ 6 D.F.) = .0002 v^2 = .14		x^2(46 $\underline{w}$ 6 D.F.) = .0001 v^2 = .18	

18 to 21, and 22 and older. As the survey progresses and the sample matures, the number of young men in each of the categories shifts. The basic cross-tabulations between job finding methods -- both grouped and ungrouped -- are shown in Tables 70 and 71 . Several rather interesting patterns emerge from these tables with regard to use of job-finding techniques, particularly formal channels. Starting with the latter, it is immediately apparent that the use of schools drops sharply after 21, as would be expected. The only possible exception to the pattern -- the 5.6 percent for the 14-17 year old group in 1966 -- is more than likely caused by the fact that in 1966 that question applies to the current or last job, which may have commenced any time between 1961 and 1966. This was not the case for 1967, 1968, or 1969 where the job-finding item applied to respondents who held a new or different job from the preceding year. For that reason conclusions drawn from the 1966 survey alone without supporting evidence from the following years should be treated with caution.

Use of the public employment service and newspapers increases with age. Perhaps the most intriguing finding is the inverse relationship between age and the use of friends and relatives. This suggests that employment experience may sensitize youth about how to locate jobs. The 1969 survey has a large number of respondents falling in the "other" category. The reason for this is not clear, although it may be due to how the interviewers handled the question. When job-finding methods are grouped into formal, informal and other, the relationships disappear, primarily because the decline in schools is offset by an increase in other formal channels. A drop in the percentage using informal techniques between the youngest and oldest groups also occurs. This is caused by decline in the use of the friends and relatives, but it is less evident when combined with the employer directly category.

Table 70

Job-Finding by Age 1966 - 1969 (Percents)

Method	1966			1967		
	14-17	18-21	22+	14-17	18-21	22+
School Empl Svc	5.6	7.8	2.2	8.9	6.1	2.2
Pub Empl Svc	1.0	3.7	6.5	1.9	4.4	4.5
Pvt Empl Svc	0.2*	0.8	1.9	0.5*	1.5	2.2
Direct Application	23.6	22.8	27.3	26.4	28.4	30.8
Newspapers	2.2	4.7	7.5	2.8	4.0	8.2
Friends-Relatives	55.8	49.7	43.9	53.1	47.9	40.9
Other	11.7	10.4	10.7	6.4	7.9	11.2
Number of Cases	1155	1072	830	639	758	464
Significance	$x^2(137^{\underline{W}}12) = .001$ $v^2 = .15$			$x^2(69^{\underline{W}}12$ D.F.$) = .001$ $v^2 = .13$		

	1968			1969		
School Empl Svc	9.6	8.5	2.4	11.2	6.8	0.8*
Pub Empl Svc	1.5	3.5	5.6	3.4	4.8	3.8
Pvt Empl Svc	0.9*	2.0	3.2	0.9*	1.2	2.7
Direct Application	26.1	26.8	32.5	22.3	22.1	24.2
Newspapers	3.3	4.5	6.1	4.7	4.8	6.1
Friends-Relatives	51.1	45.3	39.6	48.5	49.7	41.3
Other	7.5	9.5	10.5	9.0	10.6	21.0
Number of Cases	456	740	409	233	765	475
Significance	$x^2(50^{\underline{W}}12$ D.F.$) = .001$ $v^2 = .12$			$x^2(74^{\underline{W}}12$ D.F.$) = .001$ $v^2 = .15$		

*Less than 5 cases

Table 71

Job-Finding (Grouped) by Age1966 - 1969

Method	1966			1967		
	14-17	18-21	22+	14-17	18-21	22+
Formal	8.9	17.1	18.1	14.1	15.8	17.0
Informal	79.4	72.5	71.2	79.5	76.3	71.8
Other	11.7	10.4	10.7	6.4	7.9	11.2
Number of Cases	1155	1072	830	639	758	464
Significance	$x^2(43\underline{\text{w}}4\text{ D.F.}) = .001$ $v^2 = .08$			$x^2(11\underline{\text{w}}4\text{ D.F.}) = .02$ $v^2 = .05$		

	1968			1969		
Formal	15.4	18.5	17.4	20.2	17.6	13.5
Informal	77.2	72.0	72.1	70.8	71.8	65.5
Other	7.5	9.5	10.5	9.0	10.6	21.1
Number of Cases	456	740	409	233	765	475
Significance	$x^2(5\underline{\text{w}}4\text{ D.F.}) = .18$ $v^2 = .03$			$x^2(34\underline{\text{w}}4\text{ D.F.}) = .001$ $v^2 = .10$		

Discussion of the effects of age on job finding would not be complete until the effects of race are examined. Cross-tabulations of job finding by race controlling for age and job finding by age controlling for race are shown in Table 125. It must be noted again at this point that the chi-square values refer to the relationships between the seven job-finding techniques and the explanatory variable. They do not necessarily indicate whether a relationship across a row is significant. These series of tables seem to indicate that for both blacks and whites age exerts a more powerful bearing on job finding than does race. Only half of the tables comparing blacks and whites within the same age groups contain significant differences, and most of these occur in 1966 which may be peculiar since the job may have been located anytime after 1961. Of particular interest is the heavy use of the public employment service by blacks in the 18-21 and 22 and older categories and a tendency of blacks to rely more heavily on friends and relatives than whites. By comparison, differences between the age groups run separately for blacks and whites are, with one possible exception, significant at the .02 level. This suggests that while racial differences occur, they are less important than maturation in the job-finding process.

When the effects of age on job-finding are being examined, it behooves the researcher to determine the extent to which relationships are the result of age or of the length of time a respondent has been in the labor force. It can be argued that a twenty-year-old with four years of work experience may act differently from a twenty-year-old looking for his first job. To determine if this is the case, the respondent's age at the time of his first post-school job was determined using respondents who were identified as holding their first job. Age at first job was then calculated. In some cases it was the age in the particular survey, while in the 1966 survey it was age in 1966 minus the difference between 66 and the date the respondent indicated he started his first job. Age at first job was then subtracted from age in each of the surveys to obtain length of time since first job. Distributions for this variable are shown in Table 72. Job-finding techniques both grouped and ungrouped were then cross-tabulated with the length of time since the first job separately for blacks and whites. Results were unfortunately inconclusive. In two years -- 1968 and 1969 -- some of the expected relationships associated with age did occur, such as a drop in use of friends-relatives and increase in direct application, but none of the tables showed significant differences.

This may indicate that the variable has had little explanatory power or it may represent faulty measurement. There are a number of reasons why the latter may be true. Serious questions can be raised about the selection procedures because of the lack of clarity in what constitutes a first job, inconsistencies in data indicating whether a respondent was in his first post-school job, the limited number of respondents listed as having one or two years in the labor market and the very complex programming required to construct this variable. While complicated programming procedures have been used successfully in the past (e.g. longitudinal employment status recode), these variables were using more accurate data, were more internally consistent and could be validated in ways which were not possible here. On the other hand this variable may, by its very nature, tend to focus on older respondents. The major findings with regard to age and education appear to be that passing twenty or leaving schools are associated in declines in use of schools, increases in direct application and drop in use of friends-relatives. The lack of differences found may reflect the fact that these changes have already occurred. The use of schools for all values of length of time was negligible, eliminating one of the major sources of difference.

Table 72

Number of Years Since First Job
by Survey Year (Percents)

Number of Years	1966	1967	1968	1969
One	13.8	22.3	7.3	6.5
Two	14.1	14.8	17.0	6.0
Three to five	39.0	32.5	35.0	39.8
Six and more	33.2	30.4	40.7	47.7
Number	1046	1803	1601	1672

Education.-- The last major variable which will be examined is education, the educational distribution of respondents in Sample A for the four survey years is shown in Table 73 . When formal and informal methods are cross-tabulated against education (grouped into 0-11 years, 12 years and 13-15 years), persistent differences appear between job-finding and educational levels, particularly for whites. Table 126 indicates that increasing educational levels for whites are linked with progressively higher use of various formal channels, although informal techniques still predominate. For blacks, the relationships are not as significant because of the similarity in job finding patterns among blacks in the first two age groups, although sharp differences were evident between the lower two and the highest age group, the latter showing an extremely high use of formal methods in two of the four survey years. As was the case with social class, the number of black respondents in the 13-15 years category is relatively small because of the generally disadvantaged educational position of blacks. This tends to support an earlier finding regarding heavy proportionate use of formal methods among blacks in the upper social class category. Comparable labor market experiences for blacks who have graduated from high school and have no college experience and those who have not finished high school is not surprising, and there are a number of references to this phenomenon in the literature.[1]

Table 73

Years of Education for Respondents in Sample A

	1966	1967	1968	1969
1. 8 or less years	16.9	12.4	10.7	10.4
2. 9	11.2	9.2	6.6	5.5
3. 10	13.9	13.7	11.1	7.2
4. 11	14.2	15.7	16.2	12.7
5. 12	30.5	32.4	37.0	42.8
6. 13-15	13.3	16.5	18.4	21.4
Number	3080	2935	2881	2751

Cross-tabulations of individual job-finding methods with education are instructive particularly when blacks and whites are analyzed separately. Data from the 1967 and 1968 surveys are presented to illustrate the basic trends with respect to educational attainment, although findings from other years will also be cited in the following discussion. Within the formal channels there are consistent relationships between the school employment service and educational levels;

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[1] Piker, 26-33.

respondents with higher educational levels, whether black or white, show a greater probability of using schools. The major difference with respect to race was that among the middle educational category -- high school graduates -- where black use of schools is lower than was the case among whites. The jump in use of schools between black high school graduates and those with some college is precipitate in 1967 and 1968 as shown in Table 127.

For whites, use of the public employment service is generally comparable across all three educational levels except in 1966, when use is heavier for those who were high school graduates. In the case of blacks there is a pronounced trend toward higher use as educational levels increase. The private employment service is another area where possible differences appear, although these tend to be obscured by the negligible use of private agencies by black youth. As mentioned earlier, almost no blacks utilized this particular channel in 1966 and 1967. In 1968 and 1969 a small number of blacks -- 12 and 5 -- reported using this method so that tentative conclusions could be drawn. In these two years black use occurs almost entirely among those with 12 or less years of education. By comparison, white users tended to be better educated, possessing 12 or more years of education.

Findings with respect to the two informal methods are interesting and relatively important because of the large number of respondents involved. There is a precipitate drop in the use of friends and relatives as education increases in all four surveys. Respondents with less than high school education are much more likely to use this medium than those who went beyond high school. The differences are large -- 12 to 18 percentage points in three of the four surveys and six in the fourth -- and are consistent. It appears that, for whites, educational levels exert almost no influence on use of employers. Among blacks a strange pattern develops with response to this channel. In two of the four surveys -- 1966 and 1968 -- there is a sharp drop in use between those with less than 12 and those with more than 12 years of education. The drop is sizable, from 24.3 to 10.9 and 28.0 to 7.7 percent. In the other two years similar differences occur, but they are of a much smaller magnitude, only two to three percent.

Something appears to happen to whites with less than college education as they mature which causes them to shift from friends to other job-finding channels. Blacks either don't receive the same information or may feel that discriminatory barriers make the other channels far less attractive. They fall back on friends, but judging from the data on occupational knowledge, their friends know as little as they know about the world of work.

The second of the two longitudinal job finding variables was cross-tabulated with age and education in the 1968 and 1969 surveys. No differences were found with respect to the former, which probably reflects the fact that a larger percentage of the youth who show three jobs were older and more established in the labor market. Educational levels were, however, found significantly related to this longitudinal job-finding variable. This is illustrated in Table 74.

Table 74

Longitudinal Job-Finding by Education in 1969
(for respondents with three or more jobs listed)

Methods	0-11	12	13-15
Formal all three	1.8	2.2	3.8
Informal all three	71.3	61.8	55.3
Formal to informal	4.2	6.2	12.1
Informal to formal	8.5	11.6	11.4
Mixed	14.2	18.2	17.4
Number	331	275	132
Significance	$x^2(19\underline{w}8\ \text{D.F.}) = .01$		
	$v^2 = .11$		

Additional Personal Variables

A number of other personal variables were utilized in this phase of the analysis. The major independent ones consisted of situational, school related, and background and personal characteristics. These were: SMSA,[1] location of the respondent, whether he had taken a training course during the last year, type of high school curriculum, per-pupil expenditure of the last high school attended, knowledge of the world of work, score on the abbreviated Rotter internal-external scale, and I.Q.

The two major situational variables used in the analysis were location with regard to a SMSA and whether the respondent had taken a training course last year. The former was, unfortunately, not a consistent variable. In 1966 only two categories were used -- SMSA and NonSMSA -- while in 1967 and 1968 the SMSA is further divided into central city and non-central city. The 1969 counterpart refers to location at the time of sample selection, which may differ from location at the time of the 1966 survey if the respondent moved between the Spring and the Fall of 1966. Frequency distributions for this variable in the survey years is shown in Table 75 . The second situational variable -- training course -- asked whether the respondent had participated in a formal training program within the last twelve months. It was included because it was felt that certain of the formal channels might be associated with use of such a course. Frequency distribution of these variables are found in Table 76 . A longitudinal training variable was also created indicating whether a respondent enrolled in a training course in any of the four Survey years. The distribution of this variable is shown in Table 77.

SMSA.-- Two major issues arise with respect to job finding and the SMSA. The first concerns whether SMSA location influences the job-finding patterns of respondents. The second asks whether there is a significant difference between job-finding patterns of black and white

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[1] Standard Metropolitan Statistical Area.

Table 75

SMSA Location by Year

	1966 At Time of Interview		1967			1968			At Time of Sample Selection		
	SMSA	Non-SMSA	SMSA Cent.	SMSA Non-Cent.	Non-SMSA	SMSA Cent.	SMSA Non-Cent.	Non-SMSA	SMSA Cent.	SMSA Non-Cent.	Non-SMSA
Number	1884	1173	547	514	795	488	442	647	877	867	1290
Percent	61.6	38.4	29.4	27.6	42.8	30.9	28.0	41.1	28.4	28.5	42.5

Table 76

Enrollment in Training Course Last Year by Year

	1966		1967		1968		1969	
	Yes	No	Yes	No	Yes	No	Yes	No
Number	526	1187	196	844	222	811	246	820
Percent	30.7	69.3	18.8	81.2	21.5	78.5	23.1	76.9

Table 77

Enrollment in Training Course Any Year (Longitudinal) (Sample E)

	Number	Percent
Enrolled	861	41.9
Never Enrolled	1196	58.1
Total	2057	100.0

respondents living in similar parts of the SMSA. In 1966 use of formal channels is significantly related to SMSA location with respondents living in central cities far more likely to have used formal job-finding channels than those living outside of the central city, whether inside or outside of the SMSA. This is shown in Table 78 and 79 and Table 128, which also indicate that use of formal methods by blacks in the central city portion is somewhat higher than for comparably located whites. Furthermore, there is a greater percentage spread between black users of formal methods inside and outside SMSA's than is true with whites. Somewhat similar trends occur in 1967 and 1968, but the relationships do not seem as strong.

Blacks and whites living within each of these areas show similar use of formal and informal methods in the three years studied; only two of the nine tables showed significant differences. This suggests that location is a more important determinant of job-finding channel than is race. While significant differences occurred between black and white respondents in the central city portion of the SMSA and outside of the SMSA in 1966, these seemed the result of proportionately heavy use of "other" methods by whites. The "other" category is a continuing irritant in the analysis, partly because of the lack of clarity as to what it means and partly because chi-squares are sensitive to differences in the "other" channel for various values of the explanatory variable. Thus, different distributions on the "other" method for different values of the explanatory variable will affect the chi-square especially when methods are grouped.

Additional insight can be gained when formal and informal channels are broken up into component parts. The distributions for 1966, 1967 and 1968 are shown in Table 79 and Tables 129 thru 131. Differences between job finding and SMSA location are significant in each of the three surveys analyzed. The differences appear particularly sharp among black respondents. Within this group there was a noticeable

Table 78

Job-Finding (Grouped) by Race by SMSA Location

Method	1966*						1967					
	Central City SMSA		Non-Central City SMSA		Outside SMSA		Central City SMSA		Non-Central City SMSA		Outside SMSA	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Formal	19.2	22.7	14.9	13.8	11.0	6.1	18.3	22.3	14.2	14.8	12.9	12.4
Informal	68.7	27.5	75.2	80.9	74.3	85.4	74.2	69.8	78.9	78.7	76.7	79.8
Other	12.1	6.8	10.0	5.3	14.7	8.5	7.5	7.9	6.9	6.6	10.4	7.7
Number	511	366	773	94	912	378	295	242	451	61	558	233
Significance	x^2(7.4$\underline{w}$2 D.F.) = .02 v^2 = .09		x^2(2.3$\underline{w}$2 D.F.) = .31 v^2 = .05		x^2(19$\underline{w}$2 D.F.) = .001 v^2 = .12		x^2(1.4$\underline{w}$2 D.F.) = .48 v^2 = .05		x^2(.02$\underline{w}$2 D.F.) = .98 v^2 = .006		x^2(1.4$\underline{w}$2 D.F.) = .48 v^2 = .04	

	1968					
Formal	20.2	23.5	17.9	20.6	13.5	12.9
Informal	69.5	66.3	73.9	71.4	77.8	78.9
Other	10.3	10.3	8.3	7.9	8.6	8.2
Number	243	243	375	63	451	194
Significance	x^2(.79$\underline{w}$2 D.F.) = .67 v^2 = .04		x^2(.27$\underline{w}$2 D.F.) = .87 v^2 = .02		x^2(.08$\underline{w}$2 D.F.) = .95 v^2 = .01	

*At time of sample selection

Table 79

Job-Finding by Race by Location in SMSA

Method	1966**						1967					
	Central City SMSA		Non-Central City SMSA		Outside SMSA		Central City SMSA		Non-Central City SMSA		Outside SMSA	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
School Empl Svc	6.8	5.7	6.2	7.4	4.5	2.4	5.8	9.5	5.3	9.8	5.0	5.2
Pub Empl Svc	2.9	8.5	2.5	3.2*	3.0	2.6	2.4	7.0	2.9	1.6	2.9	4.7
Pvt Empl Svc	2.5	0.5*	1.4	0.0	0.1	0.0	3.7	0.8*	1.1	0.0	0.5	0.9*
Direct Application	23.7	16.9	25.7	25.5	25.3	26.7	27.1	22.7	27.7	26.2	31.0	32.6
Newspaper	6.8	7.9	4.8	3.2*	3.4	0.5*	6.4	5.0	4.9	3.3	4.5	1.7
Friends-Relatives	45.0	53.6	49.4	55.3	49.0	58.7	47.1	47.1	51.2	52.5	45.7	47.2
Other	12.1	6.8	10.0	5.3	14.7	8.5	7.5	7.9	6.9	6.6	10.4	7.7
Number	511	366	733	94	912	378	295	185	451	61	558	233
Significance	x^2(32W6 D.F.)=.0001 v^2 = .19		x^2(5W6 D.F.)=.58 v^2 = .07		x^2(29W6 D.F.)=.0005 v^2 = .13		x^2(3W6 D.F.): .01 v^2 = .07		x^2(3W6 D.F.)=.78 v^2 = .09		x^2(7W6 D.F.)=.34 v^2 = .08	

	1968					
School Empl Svc	6.2	7.0	7.2	7.9	7.3	9.3
Pub Empl Svc	3.7	4.9	1.9	9.5	3.1	2.6
Pvt Empl Svc	2.9	3.7	2.4	1.6*	0.9*	1.0*
Direct Application	28.4	21.8	26.9	14.3	33.7	32.0
Newspaper	7.4	7.8	6.4	1.6*	2.2	0.0
Friends-Relatives	41.2	44.4	46.9	57.1	44.1	46.9
Other	10.3	10.3	8.3	7.9	8.6	8.2
Number	243	243	375	63	451	194
Significance	x^2(3W6 D.F.)=.77 v^2 = .8		x^2(18W6 D.F.)=.007 v^2 = .20		x^2(6W6 D.F.)=.48 v^2 = .09	

*Less than 5 cases

**At time of sample selection

increase in the use of employer directly as the respondent moves away from the central city of the SMSA. When the job-finding techniques of blacks and whites living in similar locations are compared, differences tend to disappear, supporting the earlier contention that race has a limited bearing on finding patterns. The major exceptions are for respondents living in central cities. There, significant differences appear in 1966 and 1967 between blacks and whites primarily because of differential utilization of public employment services and direct application. Blacks within central cities seem far more likely to rely on public employment services and far less likely to try and find a job through direct application.

Training.-- The second situational variable examined was whether the respondent had taken a training course during the last 12 months. When job finding in each year is combined into formal, informal and other, differences between technique used and enrollment appear in three of the four survey years - 1966, 1968 and 1969. All are significant at the .001 level. In those years respondents using formal channels were much more likely to have enrolled in a training course than those using informal. The differences in the percentage of enrolled respondents using formal as opposed to informal methods were pronounced -- 22.2 versus 12.0 percent in 1966, 22.1 versus 12.3 percent in 1968 and 18.7 versus 12.9 percent in 1969. Users of the "other" category had patterns similar to those shown by respondents utilizing formal channels, suggesting the institutional character of this channel. The distribution for one of these three years -- 1968 -- is shown in Tables 80 and 81 for illustrative purposes.

When this table is run separately for blacks and whites, it is clear that the relationship is somewhat weaker among blacks. For that group, significant relationships are present in only two of

Table 80

Job-Finding by Training Course Enrollment for 1968 (Percents)

Method	Enrolled	Not Enrolled
Formal	22.1	12.3
Informal	65.3	78.4
Other	12.6	7.9
Number	222	811
Percent	21.5	78.5
Significance	$x^2(17\underline{\text{w}}2\text{D.F.}) = .0002$ $v^2 = .12$	

Table 81

Training Course Enrollment by Finding Controlling for Race 1968 (Percents)

Method	Whites		Blacks	
	Enrolled	Not Enrolled	Enrolled	Not Enrolled
Formal	23.0	11.1	20.0	14.2
Informal	64.6	79.1	66.7	77.7
Other	12.4	7.8	13.3	8.2
Number	161	488	60	318
Significance	$x^2(16\underline{\text{w}}2\text{D.F.}) = .0003$ $v^2 = .15$		$x^2(3.2\underline{\text{w}}2\text{D.F.}) = .17$ $v^2 = .08$	

the four years -- 1966 and 1969 -- and significance in the latter is more than likely the result of differences between the "other" category compared with both formal and informal. Part of the problem for blacks is that they are far less likely to have enrolled in a training course in the first place and once enrolled will be more likely to drop out before completion.

While class appears to exert a negligible influence on the relationships between enrollment and use of formal or informal techniques, the same is not true of age, where there is a discernible tendency for the relationship to be located among those in the 18-21 and 22-and-older age bracket in the 1966, 1968 and 1969 surveys. This is almost exclusively a white phenomenon. Excluding the 1967 Survey, which may be idiosyncratic with regard to training, there were significant relationships between use of formal methods and enrollment in a training course among 18-to-21-year-old whites in every survey. Significant or nearly significant relationships also occurred for those 22 or older in two years -- 1966 and 1968. Rarely were the relationships between formal methods and enrollment significant for younger whites or for blacks of any educational level. In two survey years, finding patterns for blacks 22 and older were related to enrollment, although one was significant at only the .10 level.

Like social class, educational levels appear to exert no specific influence on the relationship between finding and enrollment in a training course. For blacks significant relationships occurred only in 1966 among respondents with none to 11 years and 12 years of education. For whites more significant tables occurred at several points during the four years, but they followed no discernible pattern. In some years significant relationships occurred among white youth with low levels of education, while in others these relationships were centered among respondents with 12 or more years of schooling.

Additional insights can be gained into the effect of enrollment on job finding when job-finding methods are broken down into their components and cross-tabulated with enrollment. Significant relationships occur between finding and enrollment for whites in all years except 1967. The same was not true of blacks, where significant relationships were found in only one year -- 1966. Cross-tabulations for white respondents for 1966 through 1969 are shown in Table 82. For that group, schools and private employment services are consistently associated with having participated in some type of a training course. These individuals were probably placed by someone associated with the training course.

Enrollment is negatively associated with the use of friends and relatives, and the tables indicate that increases in the formal methods brought about by training course enrollment come at the expense of the friends and relatives. Attempts were again made to determine the effects of age, education and social class. Given the limited number of employed young men 14-17 who had taken a course, analysis focused on those 18-21 years old or 22 and older. Training course enrollment and job-finding were related at the .001 level in three survey years -- 1966, 1968, 1969 -- for blacks and whites 18-21. Among whites 22 and older a relationship occurred in 1966 and 1968, while for black of the same age cohort this was true in only one year. As would be expected, training course enrollment was closely linked to use of schools by white youth 18-21, although similar patterns also occurred for those over 21. Only a negligible number of youth used schools who had not enrolled in a training course. This probably reflects efforts by schools to place students they are training.

Differences between enrollment in a training course with respect to educational levels occurs primarily among youth with 12 years of education, due to the limited number of respondents with less than 12 years of education who reported taking a course, and the limited use of schools by young men over 22. Relationships between enrollment and job

Table 82

Job-Finding by Training Course Enrollment for Whites 1966 - 1969 (Percents)

Method	1966		1967	
	Enrolled	Not Enrolled	Enrolled	Not Enrolled
School Empl Svc	6.1	1.6	2.7	1.0
Pub Empl Svc	5.4	3.5	2.0	3.7
Pvt Empl Svc	3.0	0.9	3.4	1.4
Direct Application	26.8	27.5	30.2	30.0
Newspaper	6.3	6.4	7.7	7.0
Friends-Relatives	42.8	48.4	43.0	45.3
Other	11.7	11.7	11.7	11.8
Number	429	770	149	517
Significance	$x^2(31\overset{W}{-}6D.F.) = .001$ $v^2 = .16$		$x^2(6\overset{W}{-}6D.F.) = .39$ $v^2 = .10$	

	1968		1969	
School Empl Svc	7.5	6.6	0.6	8.2
Pub Empl Svc	1.2	4.1	3.6	2.2
Pvt Empl Svc	3.2	2.0	1.4	3.8
Direct Application	32.3	34.0	22.7	20.7
Newspaper	10.6	4.3	6.2	6.0
Friends-Relatives	32.3	45.1	48.8	38.0
Other	12.4	9.8	16.7	2.12
Number	161	488	498	184
Significance	$x^2(42\overset{W}{-}6D.F.) = .0001$ $v^2 = .26$		$x^2(34\overset{W}{-}6D.F.) = .0001$ $v^2 = .24$	

finding were significant among those with 12 years education for 1966, 1968 and 1969. With the exception of schools, there are no consistent differences with formal channels for whites. In the informal a sharp drop in the use of friends and relatives for enrollees is apparent. Discussion has generally bypassed black respondents because of the small number of blacks who were enrolled and who used a formal method. Some attempt was made to examine specific channels used by blacks, public employment service, employers and friends and relatives, controlling for education. Little new information emerged except to confirm earlier findings with respect to the job finding patterns of blacks of various age and educational levels.

The effects of social class on the relationship between finding and training were also examined with largely inconclusive results particularly for blacks. Among whites the type of patterns already described occurred among youth in both social class groups in 1966, 1968 and 1969. Relationships among groups in the high category did not seem as persistent, however, with significant relationships occurring only in 1966.

Cross-tabulations of the first longitudinal job-finding variable, with SMSA location for 1966 and 1966 and 1967 controlling for race, are shown in Table 83. The most significant differences occur among blacks where distance from the central city increases the chance of using only informal channels. Blacks in central cities were twice as likely to have relied solely on formal techniques as blacks outside SMSA. Whites show quite similar longitudinal job-finding patterns regardless of SMSA location. Caution should be exercised in interpreting these tables because of the mixing of longitudinal with a cross-sectional item -- SMSA location -- from the early years of the survey, which may have changed since the time the information was recorded.

Longitudinal patterns of job finding were significantly related to enrollment in a training course in three of the four surveys. The

Table 83

Longitudinal Finding and SMSA Location for Blacks and Whites (Percents)

Method	1967					
	Whites			Blacks		
	Central City SMSA	Non-Central City SMSA	Non-SMSA	Central City SMSA	Non-Central City SMSA	Non-SMSA
Formal	8.0	7.1	6.4	11.6	5.0	6.1
Informal	68.5	73.1	75.2	61.0	68.3	75.2
Mixed	23.5	19.8	18.4	27.4	26.7	18.7
Number	289	439	544	241	60	230
Significance	$x^2(4.2\underline{\text{w}}4\text{D.F.}) = .36$ $v^2 = .04$			$x^2(12\underline{\text{w}}4\text{D.F.}) = .01$ $v^2 = .10$		

	1966					
Formal	19.8	18.5	16.9	22.0	15.6	11.8
Informal	60.3	65.8	68.2	54.5	61.1	75.5
Mixed	19.8	17.7	14.8	23.6	23.3	12.7
Number	504	756	856	314	90	347
Significance	$x^2(9.7\underline{\text{w}}4\text{D.F.}) = .04$ $v^2 = .04$			$x^2(33\underline{\text{w}}4\text{D.F.}) = .0001$ $v^2 = .14$		

general pattern was that users of formal and mixed methods were more likely to have enrolled in a training course than those relying solely on informal channels, although percentage spreads were not very great. The largest differences occurred among enrolled and nonenrolled users of mixed methods. When longitudinal job finding was cross-tabulated against a longitudinal measure of training enrollment for those in Sample E, whether a respondent had enrolled in a training course in any one of the four years, major differences occurred in the formal finding group. This is shown in Table 84. Respondents who had enrolled in a course were nearly twice as likely to have used a formal channel than those who had never enrolled. The differences are significant for both blacks and whites,

Table 84

Longitudinal Finding by Enrollment in a Training Course Any Year (Percents)

Method	Enrolled	Not Enrolled
Formal	11.1	6.4
Informal	68.2	76.1
Mixed	20.7	17.6
Number	818	1133
Significance	x^2(19w2D.F.) = .0001 v^2 = .10	

School Related Characteristics.-- The next series of variables are related to the educational experiences of respondents and include type of curriculum taken in the last year of high school and per-pupil expenditure of the last high school attended. Frequency distributions for each of these variables is presented in Tables 85 and 86.

Table 85

Type of High School Curriculum

(1966) Sample A

		Number	Percent
1.	Vocational	292	11.2
2.	Commercial	63	2.4
3.	College preparatory	741	28.8
4.	General	1476	57.4
		2572	100.0

Table 86

Per Pupil Expenditure Last High School Attended
(1967) Sample A

		Number	Percent
1.	000	0	0.0
2.	002-389	237	13.8
3.	390-646	290	16.9
4.	465-539	333	19.4
5.	540-614	275	16.0
6.	615-689	191	11.1
7.	690-764	153	8.0
8.	765-839	78	4.0
9.	840 and higher	155	9.0
Total		1712	100.0

It had originally been thought that the two might in some way be related to use of formal job-finding methods. The expenditure per-pupil item turned out to an almost total bust. Few significant relationships were found between levels of expenditures and job finding whether grouped or ungrouped in any of the survey years.

Somewhat better luck occurred with the curriculum item. To simplify the analysis, the commercial group was combined with vocational because of the small numbers of respondents who were in programs of this type. Use of grouped finding data revealed few significant relationships among whites. The only difference of any note was that in 1968 and 1969 whites in college preparatory curriculums were somewhat heavier users of formal methods than were those who had been in vocational or general curriculums. Greater percentage differences occur among blacks and centered around the use of formal methods. Blacks who had taken what might be loosely labeled a general curriculum made much less frequent use of formal methods than those in vocational or college preparatory tracks. This is shown in Table 87. The patterns found for grouped methods are mirrored when the primary longitudinal job-finding variable is cross-tabulated with type of curriculum. Relationships for whites were generally inconclusive. Among blacks they were always significant, with youth in vocational or college curriculums relying more heavily on formal methods than those who pursued a general type. The percentage spread between vocational and general was particularly large.

When job-finding was broken down into its component parts, significant results were observed with respect to both black and white users of schools and friends and relatives. Use of schools was generally two to three times higher among white youth in college preparatory programs. Blacks in similar situations evidenced even more pronounced utilization of school employment services. Differences among users of friends and relatives were particularly sharp for blacks, with those in college entrance programs showing significantly smaller use of this channel than did those in the two other curriculums. This finding, which may be related to educational levels, is shown in Table 86

Table 88

Job-Finding by Type of Curriculum 1966-1969 (Percent)

Method	1966 Voc.	1966 Col.	1966 Gen.	1967 Voc.	1967 Col.	1967 Gen.	1968 Voc.	1968 Col.	1968 Gen.	1969 Voc.	1969 Col.	1969 Gen.
Whites												
School Empl Svc	5.7	8.7	4.7	7.8	7.8	4.0	4.7	12.5	4.5	5.3	12.7	2.8
Pub Empl Svc	1.9	1.9	4.0	0.9	2.0	4.4	4.9	2.8	2.8	1.1*	1.6	3.0
Friends-Relatives	46.4	46.8	48.8	51.3	47.4	47.2	40.8	31.1	57.4	43.2	41.4	45.6
All Other	46.0	42.6	42.5	40.0	42.8	44.4	49.6	53.6	35.3	50.4	44.3	51.4
Number	259	630	1054	141	409	595	122	319	504	116	425	472
Blacks												
School Empl Svc	7.2	9.4	4.6	8.5	20.6	5.5	9.8*	19.7	7.1	2.1	19.7	2.7
Pub Empl Svc	6.0	6.6	4.6	10.2	4.4*	5.5	4.9*	1.4*	6.0	8.3	5.6*	9.9
Friends-Relatives	54.2	49.1	59.5	49.2	38.2	45.8	56.1	35.2	46.3	52.1	33.8	45.0
All Other	32.6	34.9	31.3	32.1	36.8	43.2	29.2	43.7	40.6	37.5	40.9	42.4
Number	86	106	415	66	68	275	45	71	268	56	71	222

*Less than 5 cases

Table 87

Job Finding (Grouped) by Type of High School Curriculum-Blacks (Percent)

Formal	24.1	19.8	13.7	28.8	29.4	14.9	19.5	29.6	19.8	14.7	35.0	17.8
Informal	67.5	67.0	81.2	67.8	64.7	75.6	73.2	59.2	70.1	66.7	58.3	74.0
Other	8.4	13.0	5.1	3.4	5.9	9.5	7.3	11.3	10.1	18.8	6.7	8.2
Number	96	106	415	66	68	275	44	71	268	56	60	219

*Less than 5 cases

Attitude and Knowledge Indicators.-- The last group of respondent-related characteristics include four items, which in a very gross sort of a way, measure the sensitivity of a youth to the world around him and the extent to which he feels control over his destiny. The four items are diverse and include whether a respondent had access to newspapers, library cards and magazines at age 14 (called cultural exposure), how much knowledge he possesses about the world of work as measured by a series of questions in the 1966 schedule, and the scores on an abbreviated version of the Rotter internal-external locus of control scale which measures "the extent to which a youth perceives that he controls his own fate rather than being controlled by forces external to himself."[1]

> "Internal control refers to the perception of positive and/or negative events as being a consequence of one's own action and thereby under personal control; external controls refers to the perception of positive and/or negative events as being unrelated to one's own behavior in certain situations and therefore beyond personal control."[2]

The last item, which is introduced with great trepidation, are I.Q. scores obtained by the Department of Labor from the respondent's last high school. The hesitation associated with the inclusion of this measure springs from ambiguity about what I.Q. really measures, particularly for blacks. Like reading tests, I.Q. measures have been bitterly criticized as being class bound, oriented toward middle class children who possess high verbal and abstract abilities. The extreme downward skewing of scores for blacks may stem from ethnic or social class characteristics rather than differences in native ability.

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[1] *Career Thresholds*, I, 48.

[2] *Ibid*.

[3] S. M. Miller and Frank Riessman, *Social Class and Social Policy* (New York: Basic Books, 1968); and Frank Riessman, *The Culturally Deprived Child* (New York: Harper and Row, 1962).

The path of least resistence would be to combine blacks and whites and to ignore putative differences between the racial groups. This was judged unsatisfactory, since I. Q. was felt to measure some unspecified trait and to eliminate it summarily would entail a value judgment on the part of the researcher. Nevertheless, racial comparisons on this variable should be treated with the same caution with which they are presented.

Frequency distributions for each of these four variables, shown separately for black and whites, are presented in Table 89 The magnitude of the differences between blacks and whites is appalling, reflecting both ethnic differences and the extremely disadvantaged position of blacks in American society. Blacks are far less likely than whites to have had access to reading material when 14, had less knowledge about the world of work, had lower scores on the I.Q. test and were more likely to feel, and probably not without some justification, that external events controlled their lives. Each variable was split into three categories to reduce the number of cells with a small number of cases and to simplify use of tabular controls. Cross-tabulations with knowledge of work and job-finding in 1967, 1968 and 1969 assume youth with low scores in 1966 would score low again if retested, e.g. had learned little in the intervening years, a questionable assumption. The other measures, with the possible exception of the Rotter will probably be relatively stable over time.

Cross-tabulation of these items with formal and informal finding patterns indicated that for two of the variables -- cultural exposure and knowledge of the world of work -- there was a positive relation between scores and use of formal or "other" techniques and a negative relation between scores and informal channels. This trend was most pronounced among black respondents, whose use of formal methods doubles or triples as thei "scores" increase, although the number of black respondents with high "scores" is not as large as would be desired.

Table 89

Frequency Distribution: Knowledge of World of Work, Cultural Exposure, Rotter Internal-External Scale, and I.Q.

	Knowledge of World of Work			
	Whites		Blacks	
	Number	Percent	Number	Percent
Low (score 0-28)	753	2.02	852	59.2
Medium (29-37)	1464	39.2	442	30.7
High (38-56)	1517	40.6	144	10.0
Total	3734	100.0	1438	100.0
Missing	0		0	
	Cultural Exposure At Age			
Access to Library card, newspaper, magazine	2229	59.9	357	25.0
Lacked one of three	1006	27.0	390	27.3
Lacked two or all	488	13.1	681	47.7
Total	4723	100.0	1428	100.0
Missing	11		10	
	Rotter Scale			
Internal (11-20)	1100	40.9	243	24.2
Intermediate (21-25)	1056	39.2	451	45.0
External (26-44)	535	19.9	309	30.8
Total	2691	100.0	1003	100.0
Missing	1043		435	
	I. Q.			
First Two Quintiles	760	27.9	437	71.8
Third Quintile	577	21.2	94	15.4
Fourth and Fifth Quintiles	1384	50.9	78	12.8
Total	2721	100.0	609	100.0
Missing	1013		829	

Tables for blacks and whites in 1966 and 1967 are shown in Tables 90 and 91. These tables read in the opposite directions. Tables for whites in 1968 and 1969 for these two variables were also significant at the .05 level, while for blacks the same was the case in only one of the two latter years.

Cross-tabulation of I.Q. with finding produced no significant relations for whites in the four years. For blacks two of the four years showed significant results -- 1967 and 1968 -- with relationships similar to those found in the cultural and knowledge items. In the other two years the tables, although insignificant, indicate that for blacks increasing I.Q. may be positively related to use of formal and other methods and negatively related to use of informal channels. Scores on the Rotter scale also had limited explanatory power, with only two of the eight tables showing significant chi-squares values.

Controls for education, age and social class were run on the two significant items, cultural exposure and knowledge of the world of work, to ascertain if differences would hold up for different values of the control variable. Some procedural problems developed because of the number of respondents without social class scores and the relatively small number of black respondents who had "high" scores, had 13-15 years of education and had used a formal channel. Because of the temporal nature of one and perhaps both of these items, discussion will be limited primarily to 1966, when the data on both was collected. When the relationships for blacks between formal and informal channels and the cultural exposures item were examined for the three age groups -- 14-17 years, 18-21 years and 22 and older -- positive relationships between formal channels and high "scores" persisted for all three values. The same occurred for whites with regard to finding and knowledge of the world of work, for all three age groups. Similar age differences were apparent on the cultural exposure item except that white youth 14-17 years old had very similar

Table 90

Job-Finding by Cultural Exposure by Race
1966 and 1967
(Grouped)

Method	1966					
	Whites			Blacks		
	High	Medium	Low	High	Medium	Low
Formal	16.2	12.6	10.0	24.9	17.8	7.6
Informal	71.6	73.5	79.4	68.3	74.2	85.0
Other	12.2	13.9	10.6	6.9	8.0	7.4
Number	1223	634	339	189	225	419
Significance	$x^2(13\underline{\text{w}}4\text{D.F.}) = .01$ $v^2 = .05$			$x^2(35\underline{\text{w}}4\text{D.F.}) = .0001$ $v^2 = .15$		
	1967					
Formal	16.7	13.5	8.8	27.3	18.7	11.8
Informal	74.4	79.2	81.9	65.6	75.4	79.3
Other	8.9	7.3	9.3	7.0	6.0	8.9
Number	742	371	193	128	134	271
Significance	$x^2(9\underline{\text{w}}4\text{D.F.}) = .05$ $v^2 = .06$			$x^2(16\underline{\text{w}}4\text{D.F.}) = .003$ $v^2 = .12$		

Table 91

Job-Finding by Knowledge of World of Work by Race (Grouped) 1966 and 1967

Method	1966					
	Whites			Blacks		
	Low	Medium	High	Low	Medium	High
Formal	7.6	12.3	19.0	9.3	16.2	34.1
Informal	78.9	75.1	69.3	83.2	78.3	53.4
Other	13.5	12.6	11.7	7.6	5.4	12.5
Number	408	880	914	475	277	88
Significance	$x^2(35^{\underline{W}}4\text{D.F.}) = .0001$ $v^2 = .09$			$x^2(47^{\underline{W}}4\text{D.F.}) = .0001$ $v^2 = .17$		

	1967					
Formal	9.6	14.1	18.1	12.6	19.5	36.4
Informal	82.5	77.7	72.8	80.4	70.7	58.2
Other	7.9	8.2	9.1	6.9	9.8	5.5
Number	280	548	481	376	194	63
Significance	$x^2_2(12^{\underline{W}}4\text{D.F.}) = .02$ $v^2 = .07$			$x^2_2(21^{\underline{W}}\text{D.F.}) = .0003$ $v^2 = .14$		

use of the three grouped methods regardless of their access to newspapers, magazines and library cards. Among the two older white groups the same basic relationship between access and use of formal methods reappeared. Thus, access to cultural items appears to influence finding patterns for young blacks but not young whites.

More important differences were uncovered when the effects of education were eliminated. It should be noted that years of education is associated with both variables and the two may be considered component variables. With respect to the knowledge variable, youth with limited education -- particularly if black -- who possess considerable occupational knowledge tend to make heavier proportionate use of formal methods than do those with low or moderate amounts of occupational information. Relationships for both races were significant at the .01 level and were particularly pronounced among blacks, where there was also an increase in proportion of these utilizing the "other" channel. For whites the relationship may result from differences in the "other" techniques. Whatever limited relationships exist among whites with limited education, these disappear as respondents with 12 or more years of education were examined.

Relationships between use of formal and informal job finding channels and scores on the cultural exposures and knowledge items was primarily restricted to youth in the bottom half of the social class scale. No relationships occurred for black youth in the upper half or for similar white youth with regard to the cultural exposure item. The sole exception was that among white youth from the upper half there was a relationship between knowledge and use of formal methods, a finding which more than likely reflects a heavy use of schools by this group.

Analysis of the influence of knowledge and cultural exposure on the utilization of individual job-finding channels was quite productive. The strong relationship found between cultural exposure and use of schools was not surprising, given the association that educational levels have on cultural exposure. Significant relationships occurred in all four years for whites and in three of the four years for blacks -- 1968 being the sole exception -- with high cultural exposure at age 14 being linked with heavy use of schools. No other recurrent pattern was identified with regard to the other formal methods for either blacks or whites. There was a tendency among blacks for the use of friends-relatives to decline precipitately as cultural exposure increased.

Relationships between occupational knowledge and individual job-finding techniques were found in all four surveys for whites and in three of the four for blacks. The pattern found with regard to cultural exposure -- use of schools positively related to use of school employment services -- reoccurs in at least three of the four surveys. In addition, relationships were observed among others of the formal methods. There was a marked percentage increase in the use of public employment services, newspapers and private employment agencies as occupation information increased in at least two of the four survey years. Data from 1966 is presented in Table 92 and 93 to illustrate these trends. Because of the number of black respondents under consideration, conclusions with regard to this group must be treated with caution.

Relations between individual finding methods and I.Q. deserves mention. Although relationships between formal and informal methods and I.Q. were not significant, significant relationships for whites did appear when I.Q. was run against individual finding methods in three of the four years. In each of these cases large percentage jumps occur in the use of schools as I.Q. levels rise. A similar pattern occurs with regard to blacks in three years, although these were not part of tables that were significant.

Effects of age, education and social class were again investigatd

Table 92

Job-Finding by Knowledge of World of Work
1966

Method	Whites			Blacks		
	Low	Medium	High	Low	Medium	High
School Empl Svc	2.9	5.6	6.9	3.6	5.4	8.0
Pub Empl Svc	1.2	2.7	3.5	3.8	4.3	15.9
Pvt Empl Svc	0.5	0.5	2.1	0.0	0.4	1.1
Direct Application	23.5	25.7	25.3	24.6	21.7	12.5
Newspaper	2.9	3.5	6.6	1.9	6.1	9.1
Friends-Relatives	55.4	49.4	44.0	58.5	56.7	40.9
Other	13.5	12.6	11.7	7.6	5.4	12.5
Number	408	880	914	475	277	88
Significance	$x^2(47^{\underline{w}}12\text{D.F.}) = .0001$ $v^2 = .10$			$x^2(57^{\underline{w}}12\text{D.F.}) = .0001$ $v^2 = .18$		

Table 93

Job-Finding by Cultural Exposure at Age 14 by Race
1966

Method	Whites			Blacks		
	High	Medium	Low	High	Medium	Low
School Empl Svc	7.4	4.1	2.4	8.5	7.1	1.7
Pub Empl Svc	2.5	3.5	2.4	7.9	5.3	4.1
Pvt Empl Svc	1.4	0.8	0.9	0.0	0.4	0.2
Direct Application	24.9	24.0	27.4	17.5	20.0	25.8
Newspaper	4.9	4.3	4.4	8.5	4.9	1.7
Friends-Relatives	46.7	49.5	51.9	50.8	54.2	59.2
Other	12.2	13.9	10.6	6.9	8.0	7.4
Number	1223	634	339	189	225	419
Significance	$x^2(24^{\underline{w}}12D.F.) = .02$ $v^2 = .07$			$x^2(43^{\underline{w}}12D.F.) = .001$ $v^2 = .16$		

and with inconclusive results. The two main impediments to this task were: insufficient number of respondents utilizing certain formal methods particularly among blacks and those with high scores on the two items under consideration, and the interaction of age and education with the two variables. Cross-tabulations indicated the previously described effect of age and education on finding.

Summary and Review of Hypotheses

At this point a review of the most salient findings with respect to personal characteristics and whether they support the original hypotheses seems in order. It was predicted that blacks and those in the lower end of the social class scale would rely heavily on formal methods, while whites and youth in the upper half of the social class scale would be more heavy users of informal. This did not occur. Race proved far less important than expected, and while class had a sizable impact, it was in a direction opposite to that which had been expected and was closely linked to educational levels. The differences that appeared around the use of formal channels and education and social class were in part the result of heavy use of schools by respondents with 12 or more years of education. Utilization of newspapers and private employment agencies was also moderately related to social class. In general, the original predictions about the importance of social class in determining how youth find jobs were confirmed. The second indicator of social class, based on respondent characteristics, turned out to be a better measure of social class than the indicator constructed from the Duncan SEI index of the respondent's father or head of the household. One last major hypothesis that was confirmed was that youth as a group made heavy use of informal channels.

Although race was less critical than had been anticipated, several specific subhypotheses with regard to this item were substantiated. The predicted inverse use of public and private employment agencies by blacks and whites received considerable support. On the other hand, white youth did not appear to have a substantially higher use of newspapers or schools, although this had been predicted.

Age and education turned out to have a far more critical than had been anticipated. Both measures were associated with the use of school employment services or counselors, although relationships were reversed; for age it was generally negative -- higher age groups showed minimal use of this channel -- while for education the relationship was direct -- the higher the education the greater was the reliance of youth upon it. Blacks with some college showed dramatic increases in the use of this channel compared to blacks with twelve or less years. For both races, increasing education is also associated with declining reliance on friends-relatives. A similar pattern is observed with respect to age, but it is restricted to white respondents. Among this group age is also linked to an increase in direct application and in the use of newspapers and private employment agencies. There seemed to be a definite movement of whites away from schools and friends and relatives and toward other job-finding channels as they matured. The hypothesis concerning the importance of the length of time the respondent had been in the labor force was not confirmed. This was partly the result of difficulties in obtaining reliable data, and partly of the fact that this variable focused on older youth who had left school and established themselves in the labor market.

Interesting findings were observed around SMSA location and participation in training courses over the last year. As was predicted, black youth in central cities utilized public employment agencies more often than did whites, although this was as much the result of race as location. Otherwise, racial differences between youth living inside central cities, outside of the central city but still in the SMSA, and outside of the SMSA were less important than location. Proximity to the central city is associated with a much greater reliance on all formal methods except schools. While use of friends-relatives is stable across various locations, direct application rises as location moves away from the SMSA and is particularly pronounced among blacks. SMSA location was one of the few variables which had a sizable impact on use of newspapers which, as would be expected, dropped sharply as location moved past the boundaries of the SMSA. Training also turned out to influence finding, although no relationship had been hypothesized. Here, use of formal methods was linked with having participated in a training course during the preceeding twelve months. Within the individual methods, use of schools and private employment agencies increased and the use of friends-relatives declined when enrolled and non-enrolled respondents were compared.

Significant results occurred with respect to several questions measuring sensitivity to the outside world. High scores on the knowledge of work and cultural exposure at age 14 were associated with finding patterns similar to those found for education, with scores directly related to use of formal methods and inversely related to use of informal channels. One intriguing finding was that black youth with low educational levels and considerable knowledge of the world of work made heavy use of formal methods compared with similar whites. An attempt was also made to measure the impact of curriculum. The major finding was that college preparatory and vocational curriculums rather than general curriculum were associated with the use of formal channels, especially schools, as had originally been hypothesized.

CHAPTER VII

FINDINGS CONCERNING JOB-RELATED CHARACTERISTICS

Introduction

Any discussion of the relationship between job finding and occupation and industry must begin by examining the effect that selected respondent personal characteristics -- age, education, race and social class -- have on these two items, since job finding patterns will have meaning only within the context of these relationships. This was accomplished through a series of cross-tabulations in which personal characteristics were treated as independent and occupation and industry as dependent variables. One-digit occupational codes were grouped into six rubrics, professional-technical, clerical-sales, craftsmen-operative, laborer, service and farm, while one-digit industry codes were left relatively unchanged except that mining, which had a limited number of respondents, was combined with construction, and transportation and finance-insurance and business-repair services were collapsed into a single category. The distributions of these two variables in each survey year for blacks and whites is shown in Tables 132 thru 134.

Racial differences seemed to be consistently related to occupation in managerial-technical, laborer and service in all four survey years. The differences were most pronounced in the first. Whites were more likely to be in professional-managerial positions and less likely to be represented in laborer or service jobs. In 1966 blacks were slightly less likely to fall into the clerical and sales rubric and more likely to be found in farm-related jobs. Racial differences between various industries were less evident. The only consistent difference of any consequence was a greater concentration of whites in wholesale and retail trade, and even this was not terribly sharp. Other variations were either not consistent over all the surveys or not pronounced within a single survey.

Relationships between social class -- based on respondent characteristics in 1969 -- and occupation were even sharper than those found for race and were particularly pronounced for whites as illustrated in Table 135. The trends for white respondents in the first and second social class followed patterns found with blacks and whites. Among the latter, location in the second social class was associated with greater representation in professional-managerial and sales-clerical positions and under-representation in craftsmen-operatives, laborers, service and farm in all four years reflecting, in part, educational levels of respondents in these occupations. Differences were pronounced in all survey years. With the exception of service occupations, blacks had much the same trends as did whites, although differences were not as pronounced in 1966 and 1967 perhaps because of the way the measure of social class was constructed. Social class and industry differences, while present, were less sharp than those around occupation. Consistent differences do occur among blacks and whites with respect to agriculture and professional and related services. Respondents with low social class cluster in agriculture, while those in the high social class group are over-represented in professional and related services. Less sharp but still consistent variations for whites appear with respect to manufacturing, transportation-finance-business and repair services and trade. Higher-class respondents are slightly over-represented in manufacturing and under-represented in the last two. Blacks have similar but less sharp trends with respect to trade. In addition, black respondents in the upper-class category are more likely to hold professional and related positions than blacks in the low class group.

Sharp variations are evident with respect to age and occupation of whites in all the one-digit occupational groups except for clerical and sales. The proportion in managerial-technical and craftsmen-operatives rises precipately as age increases, while the percentage in service, laborers and farm drops, although movement within the latter is not particularly sharp. Age is also associated with pronounced differences among blacks with respect to craftsmen-operative and service occupations, with movement following the same general pattern. In several of the surveys changes are also apparent with respect to laborers and farm-related workers, but these shifts are not particularly consistent. Little if any movement occurs among blacks with respect to managerial-technical, clerical-sales or laborers. Changes for both blacks and whites are illustrated in Table 136.

Among whites substantial age differences occur in nearly every industrial group with the exception of personal services, entertainment and professional and related services, which contain a limited number of respondents. In the remaining industries the proportion of respondents in agriculture and trade drops as youth grow older. The drop is quite sharp in the last. The remaining industries, construction-mining, manufacturing, transportation-finance-business services, and public administration, all rise, although increases in the latter are limited to 1968 and 1969. The changes in manufacturing and trade appear quite important given both the number of respondents in these areas and the magnitude of the shifts involved. Among blacks shifts of similar size also occur with regard to these two categories. Age also leads to an increase in the proportion of blacks in managerial-technical industries, although shifts in two of the four surveys were only moderate. In two years age is also associated with declines in the proportion of blacks in agriculture and an increase in those in the combined group -- transportation-finance-business repair category. These patterns are illustrated in Table 137 for 1967.

As was the case with age, significant relationships occurred between education and one-digit occupational groups. For whites the higher the education the greater the likelihood they would fall in one of the two white-collar groupings, and the smaller the chance they would appear in the other service and laborer groups. Respondents with lower educational levels are more heavily concentrated in the service and laborer categories. The variation between education and craftsmen demands special note. Here, those with high school education are much more likely to be in the craftsmen-operative category than those with more or less than 12 years of school. Similar patterns occur with blacks and are shown in Tables 138 and 139.

Relationships between education and industry were not especially pronounced among whites with the exception of manufacturing and professional and related services. The proportion of respondents in manufacturing industries was highest among those with high school education, declining among those with more or less years of education. In addition to showing the same pattern with respect to education and manufacturing industries, the proportion of black youth in agriculture, construction and trade declined as educational levels increased. The reverse occurred with respect to professional and related services and public administration. Thus, education seems to exert a greater influence on industry location for blacks than it does for whites, with the exception of manufacturing. Some of the general findings are summarized in Figure 19.

Occupation

The next major phase of the analysis concerns the relationship between job-finding techniques and the occupation of the respondent. In the preceding section it was assumed that relationships between respondent characteristics and finding were asymmetrical -- that is, personal attributes led the use of particular channels and that job

Figure 19

General Summary Effects Age, Education, Social Class on
Occupation and Industry

Variable Movement	Industry-Occupation	Magnitude of Shift	Type of Shift Occurring	
			Whites	Blacks
Increasing age	Industry	Moderate	Decline: Agriculture, trade Rise: Construction-mining, manufacturing No or limited change: Personal services, entertainment, professional and related services	Decline: Trade Rise: Manufacturing, managerial, technical No or limited change: Construction-mining, agriculture, transportation
Increasing age	Occupation	Moderate	Decline: Service, laborer, farm Rise: Managerial-technical, craftsman-operative No or limited change: clerical-sales	Rise: Managerial-technical, craftsman-operative Decline: Service No change: Managerial-technical, clerical-sales, laborer, farm
Increasing education	Industry	Low	Peaks at 12 years: Manufacturing Rise: Professional and related	Peaks at 12 years: Manufacturing Rise: Construction, professional and related Decline: Trade, farm
Increasing education	Occupation	Moderate	Decline: Service, laborer Rise: Managerial-technical, clerical-sales Peaks at 12 years: Craftsman-operative	Decline: Farm, laborer Rise: Managerial-technical, clerical-sales No limited change: Service Peaks at 12 years: Craftsman-operative

Figure 19--Continued

Variable Movement	Industry-Occupation	Magnitude of Shift	Type of Shift Occurring	
			Whites	Blacks
Increasing social class	Occupation	Moderate	Rise: Professional-managerial; sales-clerical Decline: Craftsman, laborer, service, farm	Rise: Professional-managerial, sales-clerical Decline: Craftsman, laborer, farm
Increasing social class	Industry	Moderate	Rise: Professional & related services, manufacturing, trade, transportation-finance-business services Decline: Farm	No or limited change: Service, manufacturing Rise: Professional and related, trade Decline: Farm, transportation, public administration, construction-mining

finding was the dependent variable. Such an assumption is somewhat more tenuous when job finding is treated as an independent variable and occupation is treated as dependent, since the relationship might well be symmetrical or reciprocal. Personal characteristics and job finding channel may also interact and mutually influence choice of occupation.

Subsequent discussion will begin by examining relationships between finding and occupation when both variables have been grouped into the smallest number of categories. Each in turn will then be expanded into its component parts while the other remains grouped. This will be followed by a review of the relationships between both expanded. Blacks and whites will be analyzed separately as has previously been the case. The effects of age, education and social class will also be examined.

When job-finding channels are subdivided into formal, informal and other categories, and occupation is separated into four groups -- white collar, blue collar, service and farm -- very definite types of relationships emerge. For both blacks and whites use of formal methods tended to be linked to white-collar positions in all four years, although informal channels still predominate. Another interesting finding was that farm workers made almost negligible use of formal channels, although the number of respondents reporting this method declines sharply as the survey progresses, reflecting the influence of both age and attrition. Some of these relationships are illustrated in Table 94 for two survey years. Black and white respondents also show heavy proportionate use of formal channels to locate "service" jobs in two surveys which include such positions as policemen, barbers and janitors. Every table was significant at at least the .001 level.

When the broad occupation categories are broken down into component parts, several conclusions become apparent. The relationship between white-collar occupations and formal channels is due to the influence of the first and third components -- professional-technical and clerical.

Table 94

Job-Finding (Grouped) by Occupation by Race
1967 and 1968

Method	Whites							
	1967				1968			
	White-Collar	Blue-Collar	Service	Farm	White-Collar	Blue-Collar	Service	Farm
Formal	20.2	11.6	17.6	6.1	27.9	12.2	18.5	2.6
Informal	68.8	80.4	7.7	86.4	61.1	78.9	74.2	89.5
Other	11.1	8.0	4.7	7.6	11.1	8.9	7.3	7.9
.Number	352	704	148	66	262	654	124	38
Significance	x^2(28$^{\underline{W}}$ 8 D. F.) = .0005 v^2 = .10				x^2 (45$^{\underline{W}}$ 8 D. F.) = .0001 v^2 = .14			
	Blacks							
Formal	27.0	13.4	28.1	5.7	34.2	16.1	25.0	0.0
Informal	62.2	79.9	65.2	82.9	53.2	74.4	70.0	90.6
Other	10.8	6.7	6.7	11.4	12.7	9.5	5.0	9.4
Number	74	328	89	35	79	317	80	32
Significance	x^2(37$^{\underline{W}}$ 8 D. F.) = .0001 v^2 = .13				x^2(27$^{\underline{W}}$ 8 D. F.) = .0007 v^2 = .16			

While use of both is high as illustrated in Table 140, it is particularly pronounced with the former, especially among whites. In two of the four years, 1966 and 1969, white respondents in the manager category showed particularly heavy utilization of the "other" channel. Both blacks and whites make very limited use of formal methods to locate jobs as laborers. Obviously, word of mouth is the norm rather than the exception when it comes to this type of employment. Racial differences were nonexistent when finding was cross-tabulated with race controlling to six occupational categories -- professional-technical, manager, clerical-sales, craftsmen-operatives-laborers, service, farm blacks and whites showed statistically significant differences in only one occupational group in one year.

Cross-tabulations of the seven finding methods with all ten one-digit occupational groups produces tables containing seventy cells. This creates problems with statistics, partly because it increases the possibility of zero cells particularly for blacks, and partly because a large number of such cells can render the chi-square suspect. With this caveat in mind, a review of salient findings is in order. White youth make heavy use of schools to obtain jobs in three categories -- technical-professional, clerical and service. This trend is prevalent in all four surveys and also seems to apply to blacks, although the N is so small as to preclude more than passing mention in most occupations. Data from the 1966 and 1969 surveys are presented for illustrative purposes in Tables 141 and 142. It should be noted that youth using formal nonschool channels increase between the first and last survey.

To obtain a better subjective feel for the type of jobs located by users of schools, public and private employment services, major occupational categories were broken down into their three-digit counterparts and data on pay, job quality and social class were obtained. These are found in the appendix. In 1969 white respondents using schools to find professional jobs were working as teachers, musicians and sports instructors. White youth using schools to find jobs in the clerical rubric were cashiers, library assistants, payroll clerks, secretaries, ticket agents and bookkeepers. Finally, those relying on schools to locate jobs in the service industries were employed as kitchen helpers, doormen, janitors and waiters. Each of these three occupational areas received about equal emphasis by school users, and between them they accounted for about 60 percent of all school "finds". The hourly pay of those using schools to find jobs in the three occupational groups varied. It was higher among those in white-collar and blue-collar categories and lower in the services. Youth in the professional and technical areas had higher job quality scores as measured by expressed satisfaction, Duncan SEI and hourly pay than did youth in the other two categories. All of those in the professionals fell into the high social class groups compared with approximately half of those who used schools to locate clerical jobs. All those finding jobs in service industries fell into the low SES group. Black users of schools were heavily represented in the same three occupations groups, although the N was small. Examples of blacks in the professional-technical areas were draftsmen, civil engineer and actor, while those in the clerical-sales rubric were listed as office boys, shipping clerks, typists and library assistants. Blacks in the service industries were employed as hospital attendants, fountain workers and janitors. As was true with whites, those using schools to find jobs in professional-technical areas had moderate job quality scores and were in the second SES group.

The next specific channel to be examined will be public employment service. While the use of this method is associated with finding jobs in a variety of occupations for whites, blacks are much more heavily concentrated in the craftsmen and operatives categories partly because of the lack of black respondents in the other occupational groups. Some of the jobs found by whites in the blue-collar area are machinists, inspectors, mechanics, assemblers, truck drivers, parking attendants, deliverymen and warehousemen. Newly promulgated occupational listings from the Bureau of the Census have removed any hint of gender from the nomenclature. Examples of white-collar occupations found through the public employment service were radio and office machine operators and salesmen. White-collar occupations found by blacks through this channel include civil engineer, recreation worker, office boy and shipping clerk. Half of the respondents using the public employment service to find white-collar jobs were in the second social class group. The job quality scores of these positions were moderate, and three quarters of the jobs had Duncan SEI scores in the second or third category. Typical blue-collar occupations found by black youth through school employment services were brickmasons, auto mechanics, construction painter, apprentice, parking attendant, deliveryman, truck driver and metal polisher. Pay of youth using public employment services to locate blue-collar jobs was generally in the second category. Those in craftsmen occupations tended to do slightly better than those in operative and laborer groups, Nearly all youth were in the first social class group, with the possible exception of white youth employed as craftsmen.

The next specific channel is private employment agencies. This is almost totally concentrated in the white-collar occupations and is generally a white phenomenon. Examples of the types of job located in 1969 by whites through private agencies include auditors, physical science teachers, purchasing agents and bookkeepers. As would be expected, job quality ratings of these jobs are rather high. Social class ratings are consistently in the highest group.

One formal and two informal channels still remain to be discussed. Use of newspapers appears relatively stable across most occupational groups for both races. This is also true of direct application with the possible exception of 1969 for whites. The number of cases in the two informal channels is generally sufficiently large to permit reliable results for blacks. One of the most intriguing findings in this latter method relates to differences between blacks and whites applying directly for jobs in the service industry. Whites show a much heavier reliance on this technique -- 24.2, 26.4, 25.8, 24.1 percent -- than do blacks, whose use over the four years is 17.5, 12.4, 20.0, 18.9 percent. This suggests that blacks are less willing to reach out and apply to employers unknown to them, the result perhaps of a not altogether unreasonable fear of discrimination. The last method -- friends and relatives -- shows considerably more variation than does direct application. Use for white-collar occupations is sharply lower than among blue-collar, reflecting the trade-off between friends and schools.

The final steps in this phase involved determining whether social class, age or education influence the relationships between finding techniques and occupation. Social class appeared to have limited explanatory power within occupational groups, with relatively similar relationships occurring between finding and occupation for whites in both social classes. When both finding and occupation are grouped, tables for whites in the higher and lower class group were significant in most years. The significance reflected higher use of formal methods to locate jobs in white collar and service occupations as compared with blue-collar positions. Blacks in the lower social class group had patterns similar to those of whites. The number of blacks falling into the second class group was so small that differences had little meaning. Respondents of both races in the second class group often showed greater reliance on formal methods to find white-collar and service employment, reflecting the effects of education, although the number of white respondents finding jobs in the service area declines as the survey progresses. Results for whites from 1968 illustrate this phenomenon and are shown in Table 95 . The importance of social class was further tested by cross-tabulating finding with social class based on respondent characteristics controlling for occupation. This was similar to the analytic procedure utilized to determine the influence of race and class on finding. None of the tables was significant, confirming the lack of influence of social class within occupational groups. This was not unexpected, since if social class influences both the type of occupation and finding method, there should be relatively little variation within occupational groups when social class is used as a control. Very little new appears when both occupation and finding are expanded into their component parts. The only interesting and not unexpected finding concerns class differences in the use of school employment services. Among white youth in the high social class group, a much higher proportion of school-related finds were for jobs in professional-technical areas. For youth in the lower class group, a majority of school-related finds were in blue-collar and especially service occupational groups. For youth falling into the low social class, public schools did not lead to white-collar jobs.

Attention now turns to the effects of age and education finding and occupation. Here the concern is whether age and education influence finding within major occupational groups. Separate analyses were conducted on black and white respondents with job finding grouped and ungrouped. Finding was cross-tabulated by age and education controlling for occupation. Occupation was combined into white collar, blue collar, service and farm to ensure at least a minimal number of respondents in most categories. Tables with respect to the influence of age and education on the finding patterns (grouped) of those in blue-collar and service occupations were generally inconclusive, reflecting in part the reverse movement of individual components of the formal and informal

Table 95

Job-Finding (Grouped) by Occupation by Social Class
1968 - Whites

Method	First Social Class Group			
	White-Collar	Blue-Collar	Service	Farm
Formal	21.9	11.8	19.8	3.1
Informal	65.8	80.0	74.4	87.5
Other	12.3	8.2	5.8	9.4
Number	173	441	86	32
Significance	$x^2(20\,\underline{\text{w}}\,6\ \text{D.F.}) = .02$ $v^2 = .10$			

	Second Social Class Group			
Formal	33.6	11.9	19.0	0.0
Informal	56.2	77.1	71.4	100.0
Other	10.3	11.0	9.5	0.0
Number	146	118	21	2
Significance	$x^2(19\,\underline{\text{w}}\,6\ \text{D. F.}) = .004$ $v^2 = .18$			

categories. The N in many tables was small because of the limited number of certain types of respondents, e.g., educated whites in the services and blacks in white-collar or service occupations. The only consistently significant relationships occur with respect to age among whites finding white-collar positions. For this group of respondents increasing age is associated with heavier reliance on formal channels, following a pattern that was previously noted. The same is true in blue-collar and service occupations in 1966, but the relationships were not present in subsequent years.

Much more interesting information results when finding is broken down into its component parts and cross-tabulated with the four major occupational groups. Among whites trends between individual finding channels and age were quite similar.

Within the three major occupational groups -- white-collar, blue-collar and service -- findings follow the general pattern identified earlier. Among whites use of friends-relatives and schools declines with age, while reliance on employer directly rises. The use of public employment services also tends to increase. Trends are not always conclusive, especially among the less-used formal channels, because of the relatively small number of causes. Some of these changes for whites are illustrated in Table 143.

With blacks number problems occur, since the number of youth in white-collar and service occupations dwindles when divided up between the seven finding techniques. The only occupational category containing sufficient cases to permit reliable generalization is blue collar. For blacks in that group, increasing age is associated with a decline in schools. Otherwise few pronounced changes occur. Reliance on friends and relatives is relatively even across age groups. In two survey years slight increases occur in the use of direct application. A table from 1966 illustrates these relationships for blacks. See Table 144.

This difference between blacks and whites with respect to age was identified earlier in the analysis.

Turning to the influence of education on job finding, the data indicates that the relationship between education and finding is relatively stable across the three occupational groups. The heretofore described relationship between education and schools, direct application, and friend-relatives is present in every survey year although tables are not always significant. Examples are presented in Table 145. These trends are particularly pronounced in the first three surveys in white-collar occupations, with schools and direct application increasing and friends-relatives declining. In the 1969 survey results are inconclusive because of the extraordinarily high use of the "other" category in that year. A similar relationship between education and finding occurs when service occupations are analyzed, although the number of whites with 12 or more years of education declines with each successive survey.

This pattern is far less pronounced for blacks. For this group reliance on schools, public employment service and newspapers remains relatively stable across the three educational groups in all four surveys. Utilization of friends and relatives decreases slightly in two survey years while remaining stable in the other two. Direct application is also inconclusive, rising in some years and declining in others as education increases. Data for blacks is again extremely unreliable due to a small N. The only occupational group containing a sufficient number of cases to draw conclusions was again blue-collar workers. For this group black respondents fell primarily in the 0-11 and 12 years of education categories. The most interesting observation is the lack of difference in the two major educational groups around the use of friends-relatives and direct application. Results in 1966 for blacks are shown in Table 144.

The final part of this section concerns occupation and longitudinal job finding. In an attempt to determine whether changes in occupation over the life of the survey are associated with longitudinal finding behavior, a special longitudinal variable was developed which compared the major occupational group -- white collar, blue collar, service and farm -- of respondents in sample E in 1966 and 1969. Youth were classified into those who showed upward occupational movement, those who moved down and those who were in the same occupational group in both years. The upward group were subdivided into those who had moved up to white-collar positions and those who have moved up to nonwhite-collar ones. Downward movement was separated into those who moved down one "rung", and those who moved two or more. Nonmovers were divided into four subcategories -- one for each major occupational group. The distribution of respondents is shown in Table 96 . Approximately sixty percent of the youth had jobs in the same major group in both 1966 and 1969. Forty percent of this group fell under the blue-collar rubric. One fifth were white-collar while only a handful started and ended the surveys in service and farm occupations. The job-finding patterns over the four years for each of these groups is shown in Table 97 Several differences appear with respect to job finding between those who moved up or down the occupational ladder. Those moving up to other than white-collar occupations and those moving down two or more "rungs" showed minimal use of formal methods. The latter also had exceptionally high reliance on informal as opposed to mixed methods. Among those who remained in the same major occupational group, respondents in white-collar and services had sharply lower utilization of informal channels. Respondents in blue-collar occupations tended to eschew formal mechanisms. This seems to follow some of the major trends identified earlier.

Table 96

Comparison of Major Occupational Croups for Sample E 1966 and 1969

		Number	Percent
1.	Downward occupational movement—1 group	180	8.8
2.	Downward occupational movement—2 or 3 groups	82	4.0
3.	Upward movement to white-collar group	291	14.2
4.	Upward movement to non-white collar	236	11.5
5.	White-collar both years	265	12.9
6.	Blue-collar both years	859	41.8
7.	Service both years	55	2.7
8.	Farm both years	87	4.2
		2055	100.0

Table 97

Occupational Change by Longitudinal Search 1966 to 1969 - Sample E

		Method			Number
		Formal	Informal	Other	
1.	Downward occupational movement—1 group	9.4	64.9	25.7	171
2.	Downward occupational movement—2 or 3 groups	3.8	81.3	15.0	80
3.	Upward movement to white-collar group	9.5	64.7	25.8	283
4.	Upward movement to non-white-collar	1.7	74.8	23.5	230
5.	White-collar both years	17.8	65.6	16.6	247
6.	Blue-collar both years	7.0	77.4	15.6	826
7.	Service both years	19.6	58.8	21.6	51
8.	Farm both years	1.6	93.4	4.9	61

Industry

The next phase concerns the relationship between job-finding channels and the industry in which a respondent located a job. The problems of causality and insufficient number of respondents discussed earlier in the section on occupation reoccur. When working with the relationship between industry and finding, a case can also be made that certain industries will rely more heavily on certain types of channels, reducing a youth's ability to choose a particular channel. The temporal location of finding and industry in relation to one another is open to some question. The problem of zero cells is more severe here because of difficulties encountered grouping one-digit industries into homogeneous categories. The only two places where combinations were thought possible were mining and construction and transportation, finance-insurance, and business and repair services. Inability to collapse some of the one-digit industry groups resulted in a very small number of respondents in three of the categories and rendered chi-square values close to meaningless. Frequency distributions of the industries for blacks and whites in each survey were presented in Tables 132 & 133. Relatively little change occurs between 1966 and 1969 with the exception of declines in the number in farming and an increase in those in mining-construction which is composed mainly of respondents in the latter industry.

There were several industries where consistent differences occur with respect to the use of formal or informal methods. Among whites these include agriculture, mining-construction, personal services, professional and related services and public administration. In the first three, formal methods were proportionately under-utilized, while the reverse was true in the latter two. One interesting feature deserves mention. The number of white respondents utilizing the "other" finding category in mining-construction is approximately twenty percent in all four years, suggesting that an additional factor such as union hiring halls exerts a strong influence. It is hoped that future studies would not dump all nonconforming methods into a garbage "other" category. Black use of the "other" channel in mining-construction was lower in all four years, significantly in two. White reliance on formal channels to find positions in the professional and public administration categories ranged from twenty-five to fifty percent in most years, although the number of cases drops sharply as the survey progresses. Data from 1967 is presented in Table 98 for illustrative purposes. Blacks show very similar patterns, although the number of black respondents in most of the categories is so small the confirmation or refutation of trends is difficult if not impossible. Additional insights are gained when job finding is broken down into its component parts. As would be expected from prior discussion, use of school employment service is heavily concentrated in professional and related services. This occurs in three of the four survey years for blacks and whites. The 1968 survey is the sole exception, and this is because of the limited number of jobs respondents found in that category in 1968. Not only do schools generally account for at least a quarter of all the jobs found in the professional areas, but this group accounts for better than a third of all the jobs found through school employment services.

Use of public and private employment services among whites occurs almost exclusively in the third, fourth and fifth industrial rubric which includes manufacturing, transportation-finance-business, repair and wholesale and retail trade. In all four years use of public channels was heavily concentrated in manufacturing industries and was far in excess of the proportion of manufacturing jobs to the total number of jobs found. In two years approximately half of all jobs found through public employment services were in the manufacturing area. In 1967

Table 98

Finding by Industry by Race - 1966

Method	Agricul.	Mining and Const.	Manufac- turing	Transpor., Finance, Business Svc	Trade	Personal Svc	Enter- tainment	Profes. Svc	Pub. Admin.
					Whites				
Formal	1.0	16.9	14.6	14.3	12.6	10.2	6.7	42.0	37.5
Informal	64.9	69.7	77.8	75.0	80.4	82.7	71.7	39.1	52.1
Other	34.1	19.4	7.6	10.7	6.9	7.1	21.7		10.4
Number	208	175	632	244	593	98	60	138	48
					Blacks				
Formal	2.0	1.8	18.9	22.2	13.7	5.3	6.3	32.3	34.8
Informal	82.4	93.0	75.2	79.1	83.0	91.2	75.0	61.3	43.5
Other	15.7	5.3	5.8	3.7	3.3	3.5	18.8	6.5	21.7
Number	153	57	206	81	182	57	16	62	23

manufacturing comprised 26 percent of all jobs found by whites, while 58 percent of all employment services placements of whites were in manufacturing. The same general trend was true of private employment agencies where forty percent of all findings were in manufacturing. Given the previous uncovered tendency of private services to deal primarily with white-collar occupations, it would be reasonable to assume that many of the white-collar jobs filled were in manufacturing. With the exception of 1969, blacks finding jobs through state employment services were even more heavily concentrated in manufacturing than were whites.

Use of newspapers was also clustered in the three industrial groups -- manufacturing, transportation-business services and trade -- although visual inspection seems to indicate that newspapers led to finds in a wider variety of industries. Some of these relationships are illustrated in Tables 146 and 147 which show cross-tabulations of job-finding ungrouped and by industry for 1966. The utilization of the two informal channels -- direct application and friends-relatives -- is subject to considerable more fluctuation between various industries. Among whites direct application tends to be relatively low in agriculture, mining-construction, professional and related services and public administration. Higher use occurs in the manufacturing, transportation-finance-business services and trade headings, with the last showing the highest utilization rates in all four survey years. Comparisons with blacks must be made with certain trepidation because of the limited number of blacks in many of the categories. Like whites, highest use among blacks occurs in the wholesale and retail trade. More blacks tend to use direct application to find jobs in agriculture than is true of whites.

Use of friends-relatives is relatively high for agricultural industries and mining-construction and considerably lower in professional services and public administration. These findings were anticipated by earlier results from occupation. Reliance on friends-relatives is even for the three major groups -- manufacturing, transportation-finance-business services, and trade -- hovering at about fifty percent. In two years -- 1967 and 1968 -- there is a drop in use of this channel to find manufacturing jobs. Blacks showed consistently higher use of this informal channel in most industries. Fluctuations for blacks appeared due as much to small sample size as to job-finding behavior.

Before moving on, some discussion of the influence of age and education on the job finding-industry relationship seems in order. The basic patterns identified with respect to job finding and age -- drop in reliance on friends-relatives and schools and a rise in direct application -- are pronounced in manufacturing industries and moderately prevalent in trade. The main difference between the two industries is that declines in the use of friends-relatives are not linked to rise in direct applications in trade. However, a rather persistent rise occurs in trade industries in the utilization of newspapers with age, a phenomenon not found in manufacturing, where use of newspapers is much more stable. Another difference worth noting is the relationship between age and increasing use of private employment services in manufacturing, a trend which was not found in wholesale and retail trade. The age-related increase in direct application and decline in reliance on friends-relatives is also seen among respondents in the construction-mining rubric. The basic pattern between age and changes in the two informal methods is generally observed with blacks in manufacturing although the differences are not as sharp. Trends for blacks were generally inconclusive because of lack of sufficient respondents in most of the industrial groups.

The other major personal characteristic to be discussed is education. Here whites show very pronounced relationships between finding and education within construction, manufacturing and trade industries. For this racial group, changes are most pronounced in manufacturing and trade in 1966 and 1967, where increasing education is linked to declines in use of friends-relatives and increases in direct application. In manufacturing, use of private employment services rises with educational levels. This is probably related to white-collar placement by private agencies in manufacturing. The same occurs with respect to schools in wholesale and retail trade. Trends for blacks are very inconclusive because of the lack of black respondents with more than high school education. Some of these general findings regarding the impact of age and education on the industry finding relationship are illustrated in Table s 99 and 100.

In sum, it appears that while relationships between use of particular finding channels and the age and educational attainment may vary somewhat between major industrial groups, they are generally quite persistent, particularly with respect to the two informal channels. This has important implications for the analysis since it indicates that respondent characteristics rather than the type of job he finds are crucial determinants of how he locates his position.

Job Quality

One of the most critical issues in the field of job behavior is whether various channels lead to different quality jobs. Results indicating the superiority of certain methods have important policy implications, since they provide a means to assist youth, especially those with disadvantaged backgrounds, in making a successful transition. The reader will recall that to measure job quality a special job quality index composed of job satisfaction, Duncan Socio-economic Index of the current job and hourly rate of pay was constructed. The development of this variable has been discussed earlier, and the subjective nature of the measure must again be stressed. Nevertheless, relationships between

Table 99

Finding by Education for Selected Industries
Whites - 1968

Method	Manufacturing			Trade		
	0-11	12	13-15	0-11	12	13-15
School Empl Svc	4.3*	3.9	7.0	3.3	4.1*	9.6
Pub Empl Svc	6.4	3.1*	9.3	1.7	2.0	0.0
Pvt Empl Svc	1.1*	3.1*	2.3*	0.6*	2.0*	5.5*
Direct Application	39.1	29.9	34.9	31.7	41.8	30.1
Newspaper	4.3	11.0	7.0	4.1	5.1	8.2
Friends-Relatives	41.5	36.2	34.9	51.1	35.7	42.5
Other	7.4	12.6	4.7	5.6	9.2	4.1
Number	94	127	43	180	90	73
Significance	x^2(11$^{\underline{W}}$12D.F.) = .50 v^2 = .07			x_2^2(21$^{\underline{W}}$12D.F.) = .05 v^2 = .17		

*Less than 5 cases

Table 100

Finding by Age for Selected Industries
Whites - 1968

Method	Manufacturing			Trade		
	14-17	18-21	22+	14-17	18-21	22+
School Empl Svc	8.5*	5.2	1.2	4.6	5.9	3.1
Pub Empl Svc	6.4*	4.5	6.0	0.7*	2.2*	1.5*
Pvt Empl Svc	2.1*	6.7	6.8*	0.7	2.2	4.6
Direct Application	21.3	31.3	41.0	29.8	37.0	38.5
Newspaper	10.6	6.7	8.4	3.3	7.4	16.8
Friends-Relatives	42.6	42.5	27.7	53.6	40.7	33.8
Other	8.5	9.0	10.8	7.3	4.4	7.7
Number	47	134	83	151	135	65
Significance	$x^2(16 \underline{w} 12 D.F.) = .19$ $v^2 = .17$			$x^2(17 \underline{w} 12 D.F.) = .12$ $v^2 = .15$		

*Less than 5 cases.

various channels and job quality were both consistent and strong, indicating that job-seeking methods, at least for white youth, are not unimportant in locating high quality jobs.

As had previously been the case, discussion of the relationships between the independent and dependent variables is preceded by an examination of the effect that selected personal characteristics of the respondents have on the relationships already identified. As would be anticipated, cross-tabulation with job quality in each of the four survey years produces tables that are highly significant. In addition, the ordinal nature of these two variables permits the use of an ordinal level statistic, gamma, to measure association, which provides a better insight into the nature of the relationships than in the case with chi square. A series of cross-tabulations from 1968 for blacks and whites are presented in Table 101 to illustrate the findings. At least one important conclusion bears stating. While all of the tables are significant at least to the .02 level, there is considerable variation in the degree to which the variables are associated, particularly when blacks and whites are run separately. Education appears associated with high-quality jobs equally for blacks and whites with nearly all gammas running between .40 and .49 with the exception of whites in 1969. A much different picture emerges for age, where much more pronounced racial differences appear. Not only are the gammas for whites stronger than was true for education and more consistent, but the spread between blacks and whites is much greater. In 1968 and 1969 job quality and age are only weakly associated for blacks -- .15 and .10. Whites in the same two years showed gammas of .48 and .49 as illustrated in Table 102.

It is clear that some series of factors -- discrimination, lack of skills, job-finding techniques, etc. -- hinders the movement of non-college educated black youth into moderate or high quality jobs.

Table 101

Job Quality by Education/Age - 1968

Job Quality	Education							
	Whites				Blacks			
	0-11	12	13-15	No.	0-11	12	13-15	No.
Low	47.8	23.8	20.5	609	63.6	43.3	38.6	405
Medium	39.6	44.2	32.8	755	32.0	44.6	31.4	265
High	12.6	32.0	46.7	529	4.3	12.1	30.0	68
Number	720	749	424		437	231	70	
Significance	x^2_2(216$\underline{\text{W}}$4 D.F.) = .0001 v^2 = .24 Gamma = .43				x^2_2(68$\underline{\text{W}}$4 D.F.) = .0001 v^2 = .22 Gamma = .40			

	Age							
	14-17	18-21	22+	No.	14-17	18-21	22+	No.
Low	54.9	34.8	16.5	609	65.2	52.8	51.3	405
Medium	38.2	40.0	40.7	755	30.3	37.6	37.2	265
High	6.9	25.2	42.8	529	4.5	9.6	11.5	68
Number	421	738	734		155	322	261	
Significance	x^2(252$\underline{\text{W}}$4 D.F.) = .0001 v^2 = .26 Gamma = .48				x^2(11$\underline{\text{W}}$4 D.F.) = .03 v^2 = .09 Gamma = .15			

Table 102

Gammas for Cross-tabulations of Job Quality and Age Education by Race 1966-1969

	Age		Education	
	Whites	Blacks	Whites	Blacks
1966	.73	.53	.47	.48
1967	.56	.37	.49	.39
1968	.48	.15	.42	.39
1969	.49	.10	.23	.38

When job-finding patterns are grouped together into formal, informal and other channels, pronounced relationships appear between job quality and the method utilized. The higher the quality of the job found, the higher the probability that a formal method was used. Youth in the highest quality rubric also relied more heavily on the amorphous "other" channel. The relationships for whites were more pronounced than for blacks and were significant at the .01 level in every survey year. Relationships for blacks were significant at the .05 level in 1966 and 1968 and percentages were in similar directions in 1967. Findings for blacks must be presented with a certain degree of hesitation because of insufficient cases, particularly the lack of blacks holding high quality jobs. Tables from 1966 and 1967 are presented in Table 103 to illustrate these trends.

Much more detail becomes available when finding methods are divided into their component parts. Under this situation consistent percentage differences emerge among whites for four of the seven channels -- private employment services, newspapers, friends-relatives, and the "other" category. In all but the friends-relatives, use of the channel is positively related to higher-quality jobs. For that technique the direction is reversed -- the higher the quality of the job located, the less likely was the respondent to have utilized this channel. The tables are consistent and significant in all survey years; examples are presented in Table 104. Again the lack of clarification about what constitutes the "other" channel is unfortunate, given the changes associated with this channel. Of some interest is the absence of any relationship between use of schools and job quality, although this is not totally unexpected given the use of schools to locate jobs in service and clerical industries.

For blacks relationships between finding and job quality are significant at the .05 level in three surveys, although the uneven distribution of blacks between high and low job quality categories makes the statistics somewhat suspect. In this racial group pronounced differences occur in the friends-relative channel, and patterns similar to those found among whites reappear. The only other method where consistent percentage differences were evident for blacks was the public employment service, with higher quality jobs associated with heavier use of this technique. Data for the other methods was either inconclusive or at best suggestive among blacks. Rising job quality was linked with high use of newspaper in two years and was stable in the other two. Results for methods such as schools and direct application were in opposite directions in different surveys. The latter was negatively related with job quality in two years and positively related in the other two.

As noted earlier significant relations appear between both age and education and job quality, suggesting the importance placed on credentials and maturity in the hiring process. Now the task is to determine how much separate influence job finding exerts on the quality of job found. Analysis will focus primarily on white respondents because of the ever-present problem of sample size among blacks. Disentangling

Table 103

Job-Finding (Grouped) by Job Quality
1966 and 1967

Method	1966					
	Whites			Blacks		
	Low	Med	High	Low	Med	High
Formal	10.5	15.1	20.0	12.1	15.4	32.7
Informal	80.5	75.7	66.6	83.4	78.6	58.2
Other	9.0	9.2	13.4	4.5	6.0	9.1
Number	765	727	455	380	285	55
Significance	x^2(32$^{\underline{W}}$4 D.F.) = .0001 v^2 = .09			x^2(20$^{\underline{W}}$4 D.F.) = .0001 v^2 = .12		
	1967					
Formal	15.2	13.2	19.9	16.7	19.3	25.0
Informal	79.5	76.7	69.9	77.2	71.1	66.7
Other	5.3	10.1	10.2	6.1	9.6	8.3
Number	657	348	206	347	114	36
Significance	x^2(15$^{\underline{W}}$4 D.F.) = .0001 v^2 = .08			x^2(4$^{\underline{W}}$4 D.F.) = .42 v^2 = .06		

Table 104

Job-Finding by Job Quality
1966 and 1967

Method	1966					
	Whites			Blacks		
	Low	Med	High	Low	Med	High
School Empl Svc	5.9	4.4	5.3	5.3	2.5	3.6
Pub Empl Svc	1.0	3.9	4.6	4.5	5.6	20.0
Pvt Empl Svc	0.3	1.4	2.4	0.0	0.7	0.0
Direct Application	26.5	27.5	25.5	24.5	21.1	12.7
Newspaper	3.3	5.5	7.7	2.4	6.7	9.1
Friends-Relatives	54.0	48.1	41.1	58.9	57.5	45.5
Other	9.0	9.2	13.4	4.5	6.0	9.1
Number	765	727	455	380	285	55
Significance	x_2^2(57^{W}12 D.F.) = .0001 v^2 = .12			x_2^2(42^{W}12 D.F.) = .0001 v^2 = .17		

	1967					
School Empl Svc	7.2	2.9	5.8	9.8	2.6	5.6
Pub Empl Svc	3.3	2.6	1.5	4.9	7.0	8.3
Pvt Empl Svc	0.5	1.4	4.9	0.3	2.6	0.0
Direct Application	28.6	32.2	30.1	26.5	27.2	30.6
Newspaper	4.3	6.3	7.8	1.7	7.0	11.1
Friends-Relatives	50.8	44.5	34.8	50.7	43.9	36.1
Other	5.3	10.1	10.2	6.1	9.6	8.3
Number	657	348	206	347	114	36
Significance	x_2^2(49^{W}12 D.F.) = .0001 v^2 = .14			x_2^2(30^{W}12 D.F.) = .0001 v^2 = .17		

the effects of age and education are complicated by the lack of young men 14 to 17 with low educational levels in high-quality jobs or older well-educated respondents in low-quality ones. Starting with age and with findings grouped, no relationships existed between finding and quality for whites 14-17 and generally for those 22 and over. Relationships were more likely to occur among whites 18-22, where relationships between use of formal and or the "other" method were significant in three of the four years. For those 22 and older, significant relations occur only in 1966. Among blacks significant linkages were also found in three surveys among those 18-21.

When job-finding is expanded into its component parts, a similar type of pattern develops with relationships limited to whites 18-21. Too few blacks were present to permit any firm conclusions. The main cause of the relationships for the 18-21 year old group is the differential use of direct application, friend-relatives, schools, and "other" by respondents finding different quality jobs. The pattern for this age cohort was for use of either or both friends-relatives and direct application to decline as better jobs were located, with the most consistent decline occurring for direct application and for an increase in the use of the "other" channel. In two of the four survey years, reliance on schools rose slightly as job quality increased. In the other two, use was greatest in the highest and lowest quality categories. Data for whites from 1967 and 1968 are presented in Table 105 which illustrates some of these trends. These findings suggest that one of the causes of the finding-quality relationship is age, confirming the general importance of maturation in locating "good" jobs. If this had not been the case, cross-tabulations between finding and quality would have tended to be significant in all three age groups rather than just in the one.

Turning to education, the relationships between formal, informal, and "other" channels and job quality are not significant among whites

Table 105

Job-Finding by Job Quality - 1967 and 1968
Whites - 18-21

Method	1967			1968		
	Low	Med	High	Low	Med	High
School Empl Svc	8.4	3.8	6.7	7.6	8.7	13.3
Pub Empl Svc	5.4	3.8	1.1	0.6	4.6	2.0
Pvt Empl Svc	0.8	0.0	5.6	0.0	2.0	4.1
Direct Application	30.5	28.5	26.7	33.3	30.1	26.5
Newspaper	3.3	5.7	4.4	5.3	2.6	7.1
Friends-Relatives	47.7	47.5	43.3	48.5	44.4	29.6
Other	3.8	10.8	12.2	4.7	7.7	17.3
Number	239	158	90	171	196	98
Significance	$x^2(31^{\underline{W}}12\ \text{D.F.}) = .0001$ $v^2 = .18$			$x^2(36^{\underline{W}}12\ \text{D.F.}) = .0001$ $v^2 = .17$		

within each of the three major educational levels -- 0-11, 12, and 13-15 years. Occasional tables were significant, but these appear randomly distributed and followed no particular pattern with respect to level of education. Little improvement occurs when the finding methods are cross-tabulated individually. The two informal channels show some change but are inconsistent and contradictory. Each of the formal methods, with the exception of the schools, are generally so underutilized that shifts by a limited number of respondents give an erroneous impression about the impact of the control variable on that particular finding method. The only interesting finding appears with respect to the use of schools and job quality. In the first two educational levels -- 0-11 and 12 years -- schools appear to be negatively associated with job quality, that is, the higher the quality of the job the less likely that schools will be used. This does not occur among youth with 13 to 15 years of education; the number of respondents in that group using schools tends to suppress the relationships in the 0 to 11 and 12 year categories. This is shown in Table 106.

Table 106

Use of Schools and Job Quality

	1966 Job Quality 1			1967 Job Quality 2			1968 Job Quality 3			1969 Job Quality 4		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
0-11	3.7%	2.0	1.9	4.9	1.7	2.4	5.6	3.7	2.4	2.6	2.5	3.8
n=	20	6	2	21	2	1	12	7	1	1	5	3
12	7.1%	3.6	4.9	8.8	3.2	2.4	7.0	6.6	5.9	11.9	5.6	4.5
n=	9	12	12	12	5	2	8	11	4	5	12	7
13-15	17.2%	13.7	9.7	14.6	4.0	11.3	14.8	14.4	14.0	11.5	7.0	11.8
n=	16	14	10	14	3	9	8	13	12	3	9	15

In an attempt to take advantage of the unique longitudinal nature of the NLS, a special variable measuring longitudinal job quality was created which compared the quality of jobs held by respondents employed in both 1966 and 1969. Youth were classified into those whose job quality scores increased, decreased, or remained stationary during the period, and these were cross-tabulated with job-finding techniques in 1966 and 1969. The first set measures how much respondents who started the survey using various methods improved their job quality scores in the intervening three years and is shown in Table 148. The latter indicates whether those who found a "new" job in 1969 showed any change in job quality over the period. This is presented in Table 149 . Job finding in 1966 was also cross-tabulated against job quality in 1969 (shown in Table 150) to measure how well respondents using various channels in 1966 were doing three years later. Cross-tabulations of change in job quality generally utilized Sample E, since that group of respondents were best suited to longitudinal measures.

Cross-tabulations between finding channels in 1966 and job quality change over the three years produced significant or nearly significant relationships for whites whether finding was grouped or ungrouped. Similar percentage differences occurred with blacks despite the lack of significance of the relationships. For both races slight declines in the use of formal methods and increases in informal channels were associated with increased changes in job quality. Among the individual methods use of schools among both races is associated with increases in job quality, although movement for whites is not as sharp as that occurring among blacks. The same general trend is found among white users of friends-relatives. Use of newspapers was negatively related to increases in job quality. Among blacks use of newspapers and public employment services is inversely related to increasing job quality, while use of friends-relatives remains unchanged.

Age and education appear to have some impact on these relationships, although the lack of significance for various values of each makes the following comments suggestive at best. For schools differences occur primarily in the 18-21 year old group, while for newspapers movement is most pronounced among those 22 and older. In both cases these are the groups where the heaviest use of these methods occur. Movement within friends-relatives also appears in this age group. For blacks differences found in schools are centered among those in the youngest group, while relationships around the public employment service occur in the middle and oldest cohort. Variations around education were evident primarily among newspapers, where the decline noted above is centered among those with 12 years of schooling. The increase in friends-relatives associated with upward movement in job quality is found in all three educational levels.

Cross-tabulations of job finding in 1969 with change in job quality over the survey indicate whether those showing changes in job quality tended to rely on different methods if they found a new job in 1969. Given the small number of respondents who showed declines, the primary comparisons are between those who remained stationary compared with those who increase. For whites differences occur for direct application, newspapers, and "other". Those increasing job quality were far more likely to have used direct application. The reverse is true of newspapers and the "other" category, which has some peculiar features in 1969 as noted earlier.

A third series of cross-tabulations is job finding in 1966 against job quality in 1969. For whites higher job quality is associated with higher use of newspapers and declines in friends-relatives and the "other" category. For blacks schools and newspapers also led to higher quality jobs in 1969 with a particularly pronounced difference in the former. Slight declines occur with friends-relatives and direct application as job quality scores increase.

Rate of Pay

Rate of pay is available in both grouped and ungrouped form. Table 107 indicates mean rate of pay for jobs found through individual and grouped finding methods for all respondents and for blacks and whites in Sample A, and the rank order of the channels. Absence of data in 1966 is caused by the lack of individual values for pay in that year. Among whites private employment services and "other" methods result in consistently high paying jobs, while schools lead to badly paying ones. For whites the two informal techniques usually fall in the fifth or sixth rank as is the case with the public employment service. Among blacks schools also fare poorly. Private employment services and the "other" technique are generally superior to the five other channels, but the differences are not as pronounced as they were for whites. Public employment services clearly do a better job for blacks than for whites. In two of the three surveys studied, the spread between pay received by the highest and lowest method was much narrower for blacks than it was for whites.

Of considerable interest is the steady rise in pay levels as the Survey progresses especially for whites, and the absence of any sizable difference in the pay of positions found through formal as opposed to informal channels. This confirms an earlier observation that combining finding methods often masks important differences especially within the formal rubric. The high levels of pay resulting from the use of the "other" technique, especially for whites, suggests that this channel may be the culmination of a relatively sophisticated search strategy.

T-tests were employed to determine whether the differences between individual and grouped methods were significant, and the results are presented in appendix H. The statistics indicate that differences in pay between jobs found by schools and jobs found through any

Table 107

Mean Rate of Pay for Various Job-Finding Methods by Race Grouped and Ungrouped Sample A

All Respondents (Ungrouped)

	1967	Rank Order	1968	Rank Order	1969	Rank Order
School Empl Svc	$1.49	7	$1.75	7	$2.03	7
Public Empl Svc	1.94	5	2.26	4	2.43	6
Pvt Empl Svc	2.33	1	2.40	2	2.93	2
Direct Application	1.93	6	2.13	5	2.49	4
Newspaper	2.28	2	2.31	3	2.53	3
Friends-Relatives	2.01	4	2.10	6	2.47	5
Other	2.21	3	2.64	1	3.05	1

All Respondents (Grouped)

	1967	Rank Order	1968	Rank Order	1969	Rank Order
Formal	$1.89	3	$2.08	3	$2.39	3
Informal	2.00	2	2.11	2	2.48	2
Other	2.21	3	2.87	3	3.07	3

Whites (Ungrouped)

	1967	Rank Order	1968	Rank Order	1969	Rank Order
School Empl Svc	$1.56	7	$1.81	7	$2.05	7
Public Empl Svc	1.98	6	2.37	4	2.63	4
Pvt Empl. Svc	2.47	1	2.58	2	3.13	2
Direct Application	2.04	5	2.26	5	2.56	6
Newspaper	2.26	3	2.40	3	2.59	5
Friends-Relatives	2.14	4	2.14	6	2.59	5
Other	2.34	2	2.93	1	3.23	1
Percent	63%		61%		63%	

Table 107 (Cont.)

Whites (Grouped)

	1967	Rank Order	1968	Rank Order	1969	Rank Order
Formal	$1.97	1	$2.17	1	$2.52	1
Informal	2.10	2	2.19	2	2.58	2
Other	2.38	3	3.18	3	3.25	3

Blacks (Ungrouped)

	1967	Rank Order	1968	Rank Order	1969	Rank Order
School Empl Svc	$1.38	7	$1.65	7	$1.97	7
Public Empl Svc	1.87	4	2.12	1	2.23	3
Pvt Empl Svc	2.07	2	2.10	2	2.18	5
Direct Application	1.80	5	1.76	6	2.36	2
Newspaper	2.42	1	2.07	4	2.02	6
Friends-Relatives	1.70	6	2.01	5	2.23	4
Other	1.90	3	2.09*	3	2.46	1
Percent	57%		77%		80%	

Blacks (Grouped)

	1967	Rank Order	1968	Rank Order	1969	Rank Order
Formal	$1.78	2	$1.91	1	$2.11	1
Informal	1.73	1	1.92	2	2.28	2
Other	1.99	3	2.30*	3	2.47	3

*Differences between the "other" category for grouped and ungrouped techniques are due to the way some of the combinations were treated.

other channel are significant in three years for whites and two of the three years for blacks. Schools definitely lead to low paying jobs, although this may be because schools were used to find the first full time job. The "other" channel is the only other method where differences are consistently significant among whites, and jobs found through this mechanism usually are much better paid than those found through other channels.

Differences between some of the individual methods were also significant. Direct application led to lower paying jobs than did private employment agencies for whites but not blacks in all three years for which data was available. Significant difference also appeared between private agencies and friends-relatives in 1968 and 1969 for whites but not blacks, with the latter faring poorly. Finally, in two of the three years, whites who found jobs through private agencies had rates of pay that were significantly higher than those found through the public employment service. The general lack of significant relationships for blacks is partly the result of the relatively narrow spread in the pay of jobs found through different channels, and partly the limited number of blacks using some of the formal methods.

For cross-tabulation pay was divided into three categories -- under $1.49 per hour, $1.50 to $2.49 per hour, and $2.50 and over. The distribution of this variable in the four survey years is shown in Table 108.

Table 108

Rate of Pay All Surveys

Rate of Pay	1966	1967	1968	1969
Low (under $1.49)	40.7	35.2	21.4	12.0
Medium ($1.50 to $2.49)	35.8	40.4	49.3	45.9
High (over $2.50)	23.5	24.4	29.2	42.1
Number	2497	1712	1478	1361

The analysis of this variable started with an examination of the relationships between the use of formal, informal, and "other" channels and rate of pay controlling for race. These cross-tabulations were remarkable for the lack of any relationship between pay and the grouped finding methods. A number of the tables were significant but this resulted almost entirely from a sharp increase in the use of the "other" channel by respondents in the highest pay bracket. Otherwise differences are negligible. Expanding job-finding into its component parts produces much more significant relations, since many of the informal and formal channels appear to operate in opposite directions thereby cancelling each other out when grouped. Relationships for whites were significant in all survey years for nearly every method. These generally followed the same basic pattern extant with job quality. All the tables were highly significant; findings from 1967 and 1968 are shown in Table 109. The most pronounced change is that use of schools declines as pay rises in all four surveys. Among the other formal methods the most pronounced differences occur around the use of newspapers, which are positively related to pay. Reliance on private employment agencies was restricted solely to youth finding jobs in the second and third quality headings. Reliance on public employment services consistently increased with rate of pay, although use of this method was not great even among jobs with the highest rate of pay. The two informal methods tended to operate in different directions. Use of friends-relatives declines fairly consistently as rate of pay increases. Direct application tends to increase in most years, but the changes are not as pronounced as with friends-relatives. Attention should also be directed at use of the "other" channel, which jumps sharply between the second and third rate of pay.

Black youth show relatively similar patterns with respect to most of the formal methods -- schools, public employment service, and newspapers -- except that the percentage shifts generally occur between the first and second categories. This may result from the skewed dis-

Table 109

Job-Finding by Hourly Rate of Pay
1967 and 1968

Method	1967					
	Whites			Blacks		
	Low	Med	High	Low	Med	High
School Empl Svc	10.6	4.3	2.4	13.4	4.1	2.5
Pub Empl Svc	2.1	4.1	2.1	4.1	7.8	6.3
Pvt Empl Svc	0.3	2.0	2.1	0.5	1.0	1.3
Direct Application	26.6	31.7	31.3	28.6	22.8	30.4
Newspaper	3.2	5.7	7.7	0.5	5.2	8.9
Friends-Relatives	51.5	46.5	42.9	47.9	50.3	43.0
Other	5.8	5.7	11.6	5.1	8.8	7.6
Number	379	492	336	217	193	79
Significance	x^2(56$\underline{\text{w}}$12 D.F.) = .0001 v^2 = .15			x^2(35$\underline{\text{w}}$12 D.F.) = .0001 v^2 = .19		
	1968					
School Empl Svc	15.2	7.1	2.7	20.3	4.8	5.3
Pub Empl Svc	1.0	3.6	3.3	0.0	7.6	6.4
Pvt Empl Svc	0.0	2.1	3.0	0.0	3.6	3.2
Direct Application	29.4	30.3	33.4	31.4	22.1	17.0
Newspaper	2.5	5.7	6.0	0.8	5.6	4.3
Friends-Relatives	46.7	46.2	37.9	35.6	50.2	50.0
Other	5.1	5.0	13.7	11.9	6.0	13.8
Number	197	476	335	118	249	94
Significance	x^2(65$\underline{\text{w}}$12 D.F.) = .0001 v^2 = .18			x^2(56$\underline{\text{w}}$12 D.F.) = .0001 v^2 = .25		

tribution for blacks on this variable and the relatively small percentage, compared with whites, falling into the highest pay rubric. Differences appear for blacks with regard to the informal and the "other" channel. Use of direct application is inconclusive, declining with rising pay in two surveys, rising in one, and dropping between the first and second pay categories in the third. Use of friends-relatives is lower in the first and third categories in two surveys, increases in one survey, and remains stable in the last. Use of the "other" category is relatively stable across pay groups.

The second longitudinal measure of job-finding--respondents with three or more discrete jobs -- was also cross-tabulated with rate of pay. This was significant or close to significant in 1968 and 1969 with differences particularly evident for blacks. This is illustrated in Table 110. It indicates that consistent use of informal channels is less likely to lead to better-paying jobs than is the case with the other patterns. Of particular interest are differences between those moving from formal to informal and those moving from informal to formal channels. The latter pattern leads to increasing pay, while the reverse is true of the former.

Table 110

Longitudinal Job Finding by Rate of Pay 1968
(Respondents with three or more jobs)

	0-$1.49	$1.50-$2.99	$3.00 and over
Formal all three jobs	1.1	3.1	2.4
Informal all three	72.5	71.0	56.4
Formal to Informal	3.3	5.1	8.7
Informal to Formal	7.7	8.9	13.8
Mixed	15.4	11.9	18.7
	91	293	289

$x^2(20\underline{w}8\ D.F.) = .01$

$v^2 = .12$

After examining the basic relationship between the dependent and independent variables, a look at the influence of such personal characteristics as age and education is again in order. As was the case with job quality, the cross-tabulations are generally significant only in the 18-21 age bracket among whites with the exception of 1969, where a slightly higher chi square value -- .14 -- was recorded. This reinforces the importance of age in determining how youth locate jobs. Several other interesting patterns also are evident. Use of school employment services is negligible among youth 22 and older, as was noted in an early part of the analysis. In the remaining two age groupings, 14-17 and 18-21, schools are inversely related to well-paying jobs. Very similar patterns are found with respect to educational levels, except that the relationship between use of schools and rate of pay is extant in each major educational heading. Similar types of findings are evident among blacks, although the percentages are often based on only one or two cases. The conclusion that the school employment service led to jobs that were initially low paying is inescapable.

As has been noted earlier the use of newspapers is heaviest among youth in the oldest age group. This channel tends not to be used by young respondents to locate high-paying jobs or by older respondents to find low-paying ones. While patterns are not as consistent with newspapers as they were with schools, some trends deserve mention. In the older age group, respondents locating jobs in the highest pay group were more likely to have used newspapers than those in the middle pay group. In the other two age brackets, use of newspapers is more likely to lead to jobs in the middle rather than the first pay category. Blacks did not appear to differ markedly from whites in this, although the number of respondents often leaves much to be desired. Education appears to have a much less pronounced impact on the relationship between channels and pay.

The relationship between finding and pay also remains almost unchanged when social class is used as a control. For whites relationships between finding and pay are significant for both the higher and lower SES group. For blacks pay and finding are significant for the lower SES group but not for the higher SES group, although tne number of black respondents in this category is so small as to make the statistics almost meaningless.

Labor Market Participation

A set of specially created variables measure labor market participation in 1966, 1968 and 1969, changes in labor market participation between 1966 and 1969 and the number of weeks worked and stretches of unemployment during the four survey years. As has previously been the case with variables of this type, the measures are closely related to some of the basic demographic variables. Cross-tabulations of labor market participation in each of three years with age and education produced tables that were generally significant for both blacks and whites, with younger or less well-educated respondents tending to have less stable labor market participation. Since both are ordinal level data, gamma was again used to measure strength of association. Age is closely associated with labor market participation, with gamma's falling the .50 and .60 range for both races. The gammas for education were considerably smaller and often showed no association at all. One possible reason for this discrepancy is that the younger respondents might have been in schools during part of the year (the reader will recall the Survey was conducted in October) and thereby worked fewer weeks. However, the index also includes the number of hours usually worked, and the relationship mirrors that found for job quality. Very much the same results occur between labor market participation and social class for whites but not for blacks. Some sample cross-tabulations between labor market participation and age and education in 1968 are shown in Table 151 for illustrative purposes.

Very few significant relationships were detected between formal, informal and "other" finding methods and the annual measures of labor market participation in 1966, 1968 and 1969 for white respondents. Among blacks significant differences did occur in 1968 and 1969. The general pattern for blacks in these years was for those with less stable labor market participation -- low scores on the item -- to show higher use of formal methods. The relationships for blacks were especially pronounced among blacks 14-17 and among those with eleven or fewer years of education.

As has often been the case with variables previously discussed, relationships become more evident when finding methods were separated into their component parts. In the three surveys for which data was available -- the reader will recall that an error in one of the component variables of the labor market participation index precluded development of the variable in 1967 -- differences between finding channels and the participation index were significant. The most pronounced differences occurred among whites and involved schools and friends-relatives. Sizable differences were also observed for newspapers and direct application in two of the three years. Less stable participation was associated with increasing reliance on schools and friends-relatives, while more stable attachment to the labor force tended to be related to reliance on newspapers and direct application. These are shown in Table 152, and are reminiscent of trends found for job quality.

Patterns for blacks, while significant in each of the three surveys, did not show as consistent differences as was the case among whites. These are shown in Table 153. The major difference in formal methods for blacks was in schools, where increasing use is associated with less stable labor market participation. This relationship is probably caused by the fact that users of schools were more than likely enrolled part of the year and therefore scored lower on the participation variable. Other formal channels show little relationship with labor market participation. Among the informal methods use of direct application is inconclusive, moving in different directions in various years. Changes in use of friends-relatives are more consistent, and use of this channel is directly related to strong labor market participation -- the firmer the attachment the higher the use. This is opposite to the trend shown by whites.

Cross-tabulations of job-finding in 1966 and 1969 with changes in labor market participation indicates whether respondents using various channels in 1966 showed any changes in their labor market participation in the ensuing years or whether those with various patterns of participation over the life of the Survey used particular methods to find jobs in 1969. Cross-tabulations of job-finding both grouped and ungrouped from 1966 and 1969 with the variable measuring change in labor market participation were not significant, and no noticeable percentage differences were observed within the methods. Introduction of the various control variables did little to alter this picture.

The alternate longitudinal measures of labor market participation -- stretches of unemployment and number of weeks worked during the Survey -- had somewhat greater explanatory power than did change in labor market participation, but this occurred only when individual rather than grouped job-finding techniques were utilized. Cross-tabulation on these variables were conducted only on respondents in Sample E, in hopes of removing enrolled students who show quite different labor market patterns. The stretches-of-unemployment variable was significantly related to the use of several individual finding methods in both 1966 and 1969. Results from 1966 and 1969 are shown in Table 154. Schools, newspapers, direct application and friends and relatives showed the most pronounced relationship to finding. Schools and friends and relatives were found negatively related to the number of stretches of unemployment -- the less the unemployment the greater the reliance on schools -- while direct application and newspapers are positively related. Increased use of direct application among respondents with one or more stretches of unemployment may be related to the amount of time required to find a job through this channel. The abnormally heavy use of the "other" channel may well be confounding the relationship.

Opposite patterns are found with regard to finding and the number of weeks worked. The cross-tabulations are more significant in more of the individual surveys than was the case with stretches of unemployment, but move in opposite directions. Use of schools is, for example, negatively related to weeks worked, but this may reflect use of this medium by enrolled youth in one survey year whose lower 'score' on the index resulted from their absence from the labor force during part of one year. These are shown in Table 155. Use of friends-relatives tends to decline as the number of weeks worked increases. This finding is compatible with findings encountered earlier which show friends-relatives leading to lower-quality, less highly paid jobs but contradicts findings observed for the items on number of stretches of unemployment. The results for the other informal method -- direct application -- are much less pronounced. The last technique where consistent differences occur is newspapers. Here, sizable changes occur between either first and second or the first and third categories for number of weeks worked. Newspapers seem to relate to more continuous labor force participation. Again, this runs contrary to the findings for the stretches of unemployment, although it is possible that the two items are measuring different qualities since stretches will not be influenced by enrollment. The use of Sample E respondents was intended to control for this difference, but movement back and forth from school to work may be so continuous that annual measures of labor market participation are unsatisfactory.

Summary and Review of Hypotheses

Occupation.-- As had originally been predicted, use of formal methods was linked to locating white-collar jobs, while informal channels were more likely to lead to blue-collar positions. The relationship between finding and formal methods resulted primarily from the effects of two white-collar subgroups -- professional-technical and clerical. Youth finding jobs as laborers or farm workers relied almost totally on informal mechanisms. One interesting racial difference was the much lower use of direct application by blacks to find jobs in service industries. The original prediction that direct application would occur more with white-collar than blue-collar placements did not materialize. Private agencies did have a much higher portion of white-collar placements than did public employment services. Tabular analysis was utilized to control for the effect of social class, age and education on some of these relationships. The latter two both exert a pronounced influence, although it is difficult to untangle them because of their interactive nature. A very close reading of the data suggests that age is probably more critical, although more sophisticated types of statistical techniques are needed to resolve the question.

Industry.-- Most of the subhypotheses formulated with respect to industry and findings were not supported, primarily because of the problem of obtaining a sufficient number of respondents in the various industry and finding rubrics. The only predicted relationship occurring was the heavy use of informal methods to find jobs in manufacturing and wholesale and retail trade. Several other interesting results from the data should be mentioned. Whites show consistently high use of the "other" channel to find jobs in construction. Private employment services led primarily to jobs in manufacturing, transportation-finance-business repair, and wholesale and retail trade. Finds through public employment services were concentrated in manufacturing. Schools tend to lead to jobs in the professional and related services rubric and make up an extremely high proportion of all "finds" in that industry. The basic pattern found with respect to job finding and age--drop in use of friends-relatives and increase in direct application or selected formal methods--is particularly prevalent in manufacturing and also evident in wholesale and retail trade. Use of newspapers also shows a precipitate jump as age increases among youth finding jobs in wholesale and retail trade. When taken in the context of the sharp movement away from trade and toward manufacturing that is associated with age, this finding suggests that age rather than industry is a critical variable in determining finding patterns.

Very little evidence could be found to prove or disprove hypotheses linking high-cost and low-wage industries. This was the result of a number of factors including the nature of jobs taken by youth in transition, the limited number of youth utilizing such "high cost" channels as private employment services and newspapers, and difficulties encountered in identifying low-wage industries. The kind of information needed to measure this characteristic, such as the percentage of workers in various industries receiving the minimum wage, was not readily available. While data on minimum wages could be obtained from various Department of Labor area wage surveys, these were not organized around the Census classificatory system, limiting the utility of the data.

Job Quality and Rate of Pay.--Pronounced differences occurred in both of these cross-sectional variables for selected methods. Whites using private employment agencies, newspapers and "other" channels tended to locate higher quality jobs. The only formal channel used by blacks that was linked to high-quality jobs was the public employment service. Among both blacks and whites, use of friends-relatives was negatively related to job quality. As had previously been the case, age appears to exert a more important bearing on the quality-finding relationship than did education. No relationships were found between quality and schools and direct application for blacks and whites, private agencies for blacks and public employment agencies for whites.

Some of the same relationships observed for job quality occurred between particular finding methods, such as friends-relatives and newspapers, and rate of pay for both blacks and whites. In addition, use of schools was negatively related to pay for both races. Whites did particularly well through the "other" channel. Various techniques were more likely to lead to significant differences in the rate of pay of jobs for whites than for blacks. The original hypothesis predicted that informal methods would lead to higher-quality jobs, that among informal friends-relatives would be a "better" mechanism and that formal channels would lead to the reverse. Exactly the opposite was the case. The hypothesis that the public employment services do not lead to well-paying jobs was not supported at least for blacks, and too few blacks utilized private employment services to permit comparisons between public and private agencies for that racial group. With respect to rate of pay, it was found the blacks do "better" through formal rather than informal methods as was predicted. The same was true for whites, which was not predicted.

No relationships occurred between labor market participation and finding methods when the latter were grouped. Some patterns did develop with the individual finding methods, where less stable labor market participation was associated with heavy reliance on schools and friends-relatives, and more stable participation was linked with direct application and newspapers. The relationship between the longitudinal variables measuring change in quality and labor market participation over the survey and finding techniques were also investigated. While trends were significant, they were quite contradictory, and it is possible that one or both is not a valid measure of the phenomenon under consideration.

General Comments on the Analysis

Some general comments on the analysis, especially extent to which the data supported the hypotheses, seems in order. Some of the predictions were confirmed. Others were not. Reasons for lack of confirmation stem from inadequate hypotheses, problems with the data on job finding, and deficiencies of the Survey. Problems with job finding information were probably the most critical, although selection procedures, lack of variability in black respondents and inadequate labor market data were also important.

Deficiencies in Job Finding Data.-- The greatest drawback with respect to finding data concerned the predominance of the informal channels. Even with the relatively large sample, the number of youth using one of the formal techniques was often small. While combining the methods into formal and informal rubrics did provide a better pool of respondents for analytic purposes, these groupings were not always conceptually sound, and tended to mask important differences in the techniques. The lack of clarity about what constitutes the "other" channel was also unfortunate given the apparent institutional character of this mechanism, the number of youth using it in some years, the apparent success with which it was used and the possibility it presented the culmination of a well planned search strategy. Future surveys of this type, particularly if they include urban workers who tend to use a broader range of search techniques, should list all responses and let the researcher combine them. Various combinations must also be explicitly noted. These should be consistent if more than one set of interviews is being conducted.

A more fundamental difficulty with job finding occurs with respect to possible ambiguity over whether a source of information about a particular finding technique is synonomous with the worker's source of information about a job. For example, a job seeker may have a positive experience with a private employment agency and recommend it to a friend, who in turn uses the agency to find a job. The agency was the technique used, while the friend was the source of information. This is also important with respect to the two informal channels, since a tip from a friend may lead to a series of direct applications. One means for handling this problem would be to split the job finding question into two parts. The first would ask how the job-seeker obtained information about a job; the second would determine the actual channel through which the job was obtained. It is conceivable that the two might be the same.

Also interesting, but somewhat more difficult to obtain, would be information regarding the sequence of steps through which a job was found. This should include data on the number of prospective employers contacted, the number of techniques used to search, the period of time over which the search was conducted and the geographical extensiveness of job search efforts. Such information would provide insight into the extent to which the job hunter had a planned search strategy or whether search was conducted in a desultory manner.

Limitations in theoretical models of job search also hampered the analysis. When available, paradigms were often abstract and contained concepts which are difficult to measure, especially with the types of data available in the National Longitudinal Survey. For example, it is difficult to identify low or high wage industries and calculate search costs for both the employer and employee. Both are necessary to test Stigler's thesis. One possible solution to the types of problems discussed above would be a relatively small methodologically oriented study of job search. It could sort out and identify the various components of the search process.

Selection Procedures.-- One continuing difficulty centered around selecting the types of respondents to be analyzed. This is particularly critical for youth who are in varying stages of entry, and considerable time and effort had to be spent in this investigation trying to identify different types of youth in the Survey. When the sample is examined longitudinally, selection became a formidable task. While each year contains indicators of employment and school status, there was no well developed indicator or longitudinal employment or transition status in the survey. Such an indicator is needed and should reflect various stages in the process of transition. A variable indicating the number of months or years since the respondent left school and entered the labor market on a full-time basis is also essential. It should be linked with a more concerted effort to identify the point at which a youth's first full-time job occurred.

Lack of Variability in Black Respondents.-- There was a crying need for more variation in the types of black respondents available for analysis. While the three-to-one white-to-black sampling ratio did generate a sample of blacks which was representative of the overall black population, blacks are generally so disadvantaged a group that racial comparisons frequently reflected economic differences. Future surveys of this type should consider stratifying blacks to ensure a greater number of less disadvantaged blacks.

Labor Market Data.-- Labor market information was less adequate than would have been desired. The absence of information on conditions in the labor market in which respondents were located -- unemployment rates, youth employment opportunities and industrial diversification -- was quite unfortunate and will be included in the new release of the young men's survey.

The lack of month by month or at least quarterly data on the labor market behavior of youth is also regrettable, given the job changing proclivities of this age-sex cohort. Some data is available on the job preceding the one held at the time of the Survey, but this does not give sufficient insight into the movement in and out of the labor force. Subsequent surveys should attempt to eliminate the gaps or holes in the labor force histories of respondents.

Occupational and industry data also leaves much to be desired. With the Bureau of the Census codes, difficulties center around the intrusion of status in the development of the categories, and the lack of indicators of job content or function. It is difficult to make comparisons and draw conclusions from a variable that lacks a firm conceptual base. The one-digit industry codes refer to the general activitity of an industry and appear to have even less explanatory power than occupation. What appears to be needed is some type of a composite occupation-industry index which measures the quality of a particular job. Work being done in this area suggests that such factors as the size of the firm are important. Similar occupations may differ in attractiveness depending on the setting. A janitor's job in a large union plant of a national company may be of considerably higher quality than the same position in a small local nonunion firm. In other words: a janitor is not a janitor.

Chapter VIII

SUMMARY AND CONCLUSIONS

Summary

This study examined the job finding behavior of young men in the course of transition from school to work. The data for the investigation was derived from a special National Longitudinal Survey of the work experience of male youth from 1966 through 1969. This analysis was restricted solely to employed respondents with fifteen or fewer years of education. The study attempted to determine whether the use of particular job finding techniques was associated with various personal characteristics of the youth or with job characteristics -- the type and quality of the jobs they found.

Personal Characteristics.-- The ways young men located jobs appeared closely tied to characteristics that influence the entry process. Age and education were of paramount importance. Younger less educated youth relied heavily on the two informal techniques -- direct application and friends and relatives. Among this group, use of formal channels -- school employment services, public and private employment agencies and newspapers -- was minimal. Increasing age and education were characterized by shifts from informal to formal channels, although informal were still dominant. Also the types of informal and formal channels tended to change. As white youth mature they rely less on friends and relatives and schools and more on direct application, public and private employment services and newspapers. But for both races, a rise in educational levels brought a sharp rise in the use of formal techniques, particularly school employment services. This generally resulted in less use of friends and relatives. The shift is particularly pronounced among respondents with more than twelve years of education.

Racial patterns in job finding were not as important as the researcher had anticipated and were overshadowed by social class differences. This does not mean that race was unimportant; in fact, black youth made consistently greater use of public employment services, and relied less on private agencies and direct application than did whites. But racial differences were not as significantly linked to the use of particular channels as was social class. Blacks did not change job finding methods as they grew older. Educational levels were critical for blacks; well-educated black youth showed a precipitate jump in reliance on formal methods, particularly schools, and a decline in friends-relatives as compared with blacks with less education.

A series of variables which measure what might be called a youth's level of sophistication or breadth of experience -- cultural exposure at age 14, occupational knowledge and participation in a training course -- were associated with a heavier use of formal channels.

Job Characteristics.-- The study also investigated whether particular job finding channels led to positions in various occupational or industrial groups or to jobs of different quality and pay levels. Within broad occupational categories, the major finding was that people who used formal methods tended to find white-collar jobs, particularly in the professional and clerical areas, while those who relied on informal methods ended up in blue-collar jobs.

Both job quality and rate of pay varied with the use of particular job-finding techniques. Whites who relied on private employment agencies, newspapers and the "other" (miscellaneous) channels tended to locate better quality jobs than did those using the other channels. The only formal channel leading to notably higher quality jobs among blacks was the public employment service. Among both blacks and whites, use of friends and relatives generally led to lower quality positions. Relationships between rate of pay and various finding techniques were significant only for white respondents. The researcher had originally thought that informal channels would lead to higher rates of pay for certain types of respondents than would the informal counterparts. This was not borne out; several formal channels such as private agencies, newspapers and the "other" channel resulted in jobs with high rates of pay. School referrals consistently led to jobs with significantly lower rates of pay than did all other methods. The opposite was true of the "other" technique for whites. The rate of pay for jobs obtained through the two informal methods were similar and were also consistently lower than rates for all those obtained through the formal channels with the exception of the school employment service.

Conclusions

For a majority of youth, entry into the job market appears marked by a steady improvement in the types of jobs held as well as greater variation in the means utilized to locate them. Advantaged white youth tend to bridge the transition from school to work successfully; blacks and poor whites do not. One reason for the lack of success of disadvantaged youth is their abysmally low levels of labor market information and the narrow range of finding techniques utilized. While advantaged and disadvantaged youth both start out holding casual low paying jobs, the latter group never moves beyond that point.

The critical fact is not just that advantaged youth are able to make use of a wider range of finding channels, but that they are not dependent on -- locked in -- to informal methods, especially friends and relatives, to secure employment. They use friends and acquaintances when friends have knowledge of "good" opportunities. They do not use them by default. Direct application is also more successful because this group has a better idea about how to initiate and carry out a search.

Because disadvantaged youth enter the labor market with limited educational experiences and cultural backgrounds, they have little opportunity to learn how to look for a job or of the various ways to upgrade skills. Under these circumstances it is not surprising that they are forced to fall back on friends and relatives who know as little as they do about how to find "good" jobs. Failure begets failure and a vicious cycle is created in which marginal workers lock each other into a secondary position in the labor market.

The formal job seeking channels, like the circus performers of ancient Rome, have acquired a reputation that is not entirely deserved. Not only are these mechanisms used by well educated youth who possess high levels of knowledge about the world of work, but some of the formal methods lead to significantly higher quality and better paying jobs than do the informal channels. Older and better educated searchers are more likely to use formal channels; the very characteristics that make the use of formal techniques successful. Repeated use of formal techniques by youth who have held several jobs suggests that, once exposed to formal means, they are more likely to use them for subsequent searches.

The general assumption that advantaged youth are successful in their search efforts because they have friends and relatives who direct them toward good jobs does not accurately describe what seems to occur. What is more critical than the technique is what you know, i.e., the level of information about the labor market, coupled with the ability to exercise choice in the way they locate jobs. Although friends and relatives may help youth increase their knowledge, they may not necessarily be the direct source of information about jobs. The use of friends and relatives to find jobs may be more successful in the type of close knit working class community studied by Carter, than communities where ties are not as close.

Implications

If young people use formal channels frequently and with considerable success, does this mean that they should be encouraged to rely more heavily on those channels? The answer is a qualified yes. The qualification concerns the need to improve job search opportunities. This entails increasing the level of information the disadvantaged youth possess about the world of work, which should include but not be limited to, the other available means. The effort should not be to encourage disadvantaged youth to use formal channels, but rather to encourage them to look for work in a more planned way and to make more informed and conscious choices among various job search methods.

Such a strategy can probably best be implemented through the development of creative career guidance and occupational information within the public school system. While such an approach may not remove what Sheppard feels is the "haphazard choices of early jobs based on limited knowledge of the full range of types of occupations and employers", it is certainly a step in the right direction.[1] Efforts to increase information, whether about employment in general or how to locate jobs, must be closely linked to occupational counseling and to training and skills that are in demand in the real world.

Creative placement services for youth are also needed; they can take the form of youth placement activities within the school system itself or in agencies working closely with schools. In New York City, for example, counselors from the state employment service are often physically located within high schools. Alternatively, the employment service could develop services geared toward the special needs of youth through an independent Youth Employment Service as has been done in Great Britain. Such efforts must, however, lead to jobs if they are to be successful. Placement efforts do not generate job opportunities and if youth unemployment in the United States is, as many feel, a reflection of structural imbalance in our economy, then government must assume greater responsibility for creating permanent career oriented employment opportunities.

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[1] Sheppard, "Youth Discontent and the Nature of Work," 99.

APPENDICES

Appendix A

The Construction of the Longitudinal File

The early version of the National Longitudinal Surveys, as distributed by the Bureau of the Census, were organized in a manner that restricted longitudinal analysis. To generate a data base that was more amenable to this type of investigation, a rather extensive reorganization of the data in the four young men's surveys was undertaken. The end result of this was the construction of a special longitudinal data file which, while uniquely suited to the investigation being undertaken, could also be used by other manpower researchers.

Starting with the 1966 Survey, data on specified variables from each of the four young men's surveys were extracted from records located on a magnetic computer tape, reorganized by the computer into the new standard format and transferred onto another magnetic tape. This manipulation turned out to be a much more complicated task than had originally been anticipated, because of the peculiar manner in which certain variables were organized, the mixing of alphabetic and numeric characters in the same location on the original survey and the number of variables being transferred.

The first step in the creation of this longitudinal file involved determining the variables that would be examined. Once these had been isolated, the documentation and survey schedules from each of the four surveys were examined to determine the location of each applicable variable, the manner in which answers were coded and whether questions and responses were uniform from year to year. On the basis of this information, a standard 160-column record blank was designed into which data from each of the survey years was transferred. A list of the variables and their location on this standard record are shown in Appendix B. Every variable in the study had its own unique location, ranging from one to four columns in width, whether or not it occurred in every survey year, so that data from each survey was located in exactly the same position on the standard format. Answers to many recurring questions were recoded so that responses were uniform from year to year. In addition, a number of items that were not found on the original surveys or had to be constructed from other questions were included on this standard record. Examples include the family responsibility index, the Duncan Socio-economic Index for the person who was head of the household when the respondent was 14 and certain one-digit industry codes.

A set of documentation was written which described the location and responses of each question on both the standard record and on the original survey. All changes made during the transfer of data from the original 1800-column cross sectional record to the new 160-column longitudinal record were carefully documented in a section on derivations. A sample page from the documentation and derivations are shown below in Figures 20 and 21.

Version IV of the Statistical Package for the Social Science (SPSSH) was used to manipulate the data. It read the variables from the original record, transformed them from alpha to numeric characters, constructed new variables, recoded responses where necessary and rearranged data into the new standard format. For example, marital status -- VAR003 -- was located in columns 14, 12, 19 and 20 in the 1966, 1967, 1968 and 1969 surveys as indicated in Figure 20. There were six possible responses to this item ranging from married-wife present, widowed, separated, divorced, married-wife absent to never married. Since the middle four responses occur infrequently in this cohort, these responses were recorded into the never married category and were assigned a value of two. Married respondents were assigned a value of one and all not applicable responses were given a value of zero. The values of one, two or zero -- married-wife present, never married and all other and not applicable --

Figure 20

DERIVATIONS FOR LONGITUDINAL FILE (JULY 10, 1973)

Variable Number	Question	Location in Each Survey 1966	1967	1968	1969	Comments and Derivations	Number Fields	Character Location
VAR002	Survey identification code	N/A	N/A	N/A	N/A	Identifies year of each record block	1	5
VAR001	Serial number of respondent	3-6	3-6	3-6	3-6	Characters 1 and 2 ignored because they contain blanks	4	1-4
VAR003	Marital status	14	12	19	20	'0' - not applicable, does not apply. Responses 2 thru 6 recoded into '2' 2 married spouse absent 3 widowed 4 divorced 5 separated 6 never married 1968 and 1969 have blanks. Recode = '0'	1	6
VAR004	Age	15-6	15-16	1012-3	11-2	No not applicable punch	1	7-8
VAR005	Race	17	962	1010	7	'0' = not applicable does not apply. Recode '3' = '0'		9
VAR006	Number family members and reason not interviewed	20-1	13-4	21-2	21-2	No not applicable = (99) All 'X' codes - reason not interviewed recoded to 99 (1X, 2X, 3X, 4X, 5X, 6X, 7X, 8X, 9X, 0A, OA, BX, OX, AX) Only 1968 has '00' = none punch		10-11

Figure 21

CODES AND FORMAT FOR LONGITUDINAL FILE 7/10/73

Number	Question	Universe	Codes	Number of Fields	Character Location
VAR001 VAR085 VAR169 VAR253	Serial Number	All		4	1-4 161-4 321-4 481-4
VAR002 VAR086 VAR170 VAR254	Survey Identification	All		1	5 165 325 485
VAR003 VAR087 VAR171 VAR255	Marital Status	All	0. Not applicable; does not apply 1. Married, wife present 2. Never married and all other	1	6 166 326 486
VAR004 VAR088 VAR172 VAR256	Age	All	Actual Age 00 Not applicable; does not apply	2	7-8 167-8 327-8 487-8
VAR005 VAR089 VAR173 VAR257	Race		0. Not applicable; does not apply 1. White 2. Black	1	9 169 329 489
VAR006 VAR090 VAR174 VAR258	Number of family members and reason not interviewed		00. Not applicable; does not apply 01-98 Actual number 99 All non-interviews	2	10-11 170-1 330-1 490-1

were written into column six on the standard record as indicated in the sample documentation.

Restriction in SPSS on the number of recodes in a single computer run[1] precluded removal of all relevant data from each survey year in one pass, and with the exception of the 1966 survey, three separate runs were needed to extract the desired information. In 1966 six runs were required because of the idiosyncratic treatment of a number of variables in that year. Each of the separate passes removed different groups of variables from that survey year and transferred them onto the specially designed 160 column record. Every respondent had as many 160-column records as there were passes for that year, although each was only partly filled with data. These partially filled records were called sub-records and are illustrated in Figure 22.

The entire process for the four surveys required 15 passes, each with its own 2-300 card program that had to be written, keypunched and tested. Since extensive recoding was often undertaken, frequency distributions had to be run on each variable and carefully checked and double-checked against the original survey. The actual transfer of data was accomplished with the write cases option in Version IV of SPSS which allows the user to reformat variables.

Once the subrecords had been created, they were sorted and merged together into a single 160-column record for each year with PL/1 programs specially written for this purpose. The procedures are far easier to describe than to accomplish, since the three passes for each year generated 15,675 (5225 X 3) separate subrecords which had to be combined, and because the three subrecords for each respondent were not located contiguously as illustrated in Figure 22. All subrecords were identified by serial number, by year and by a special tag number indicating whether the

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[1] A computer run or pass is when the computer reads or scans records for information on one or more variables.

subrecord was the first, second or third segment of the final block for that year. Using an IBM utility program, these subrecords were then sorted by serial and tag numbers so that the three subrecords for each respondent followed one another on the computer tape. This is illustrated in Figure 23. Once completed, the three subrecords were merged into a single record, using a PL/1 program, as is shown in Figure 24 When data from each of the surveys had been completed, each respondent had four standard 160-column records, one for each year. They were organized by year, not respondent, and these were then sorted and merged in much the same manner as the subrecords in the individual years. An IBM utility sorted the records into a single 640-column record block as illustrated in Figure 25.

The entire process just described, including the development of the documentation, took eight weeks of the candidate's time and a one-quarter time programmer during the summer of 1973. Nearly 26 hours of CPU time and 700 runs were needed to complete the process that would have been impossible had the Computer Center charged for time. The computer used was an IBM 370/145 with a core of 512K with a virtual memory (VS2) operating system located at Virginia Commonwealth University in Richmond, Virginia. Data on each of the surveys was located on a separate reel of magnetic tape, written 9 track 1600 BPI. Standard tape drives were used to read the tapes, and the resulting output was written onto temporary disk storage or onto scratch tapes. The main hardware problem involved obtaining sufficient temporary disk storage to handle all the records being manipulated, given the relatively small core size of the computer being used. (Core has since been increased to 1024K-one mega-byte The main software problem was the poor interface of SPSS and the virtual memory operating system being used, because of the manner in which the SPSS program is written which resulted in a considerable amount of "paging" or thrashing. When certain other types

Figure 22

Sub records for one year
Organized by Pass

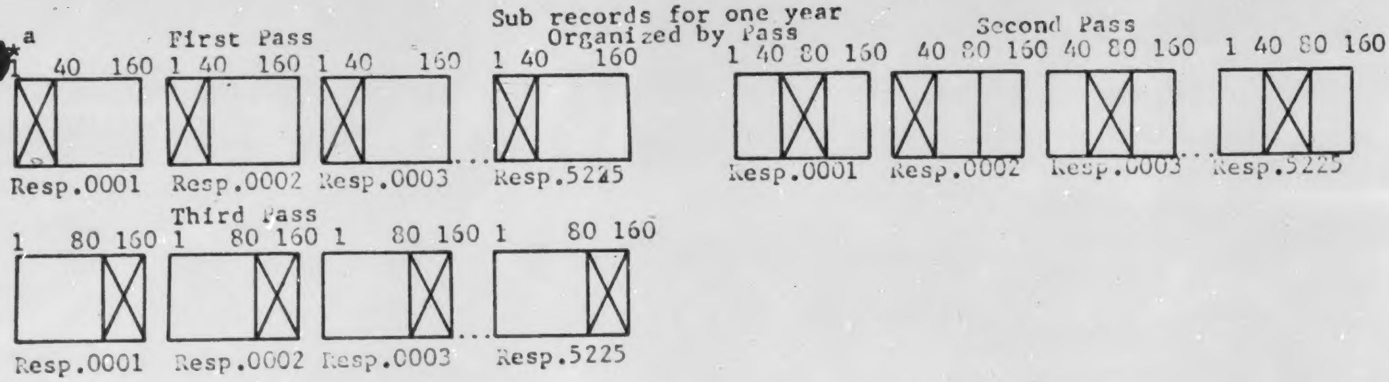

*a
First Pass
1 40 160
Resp.0001
Resp.0002
Resp.0003
Resp.5225
Second Pass
1 40 80 160
Resp.0001
Resp.0002
Resp.0003
Resp.5225
Third Pass
1 80 160
Resp.0001
Resp.0002
Resp.0003
Resp.5225

Figure 23

Sub records for one year
Reorganized by Respondent Serial Number

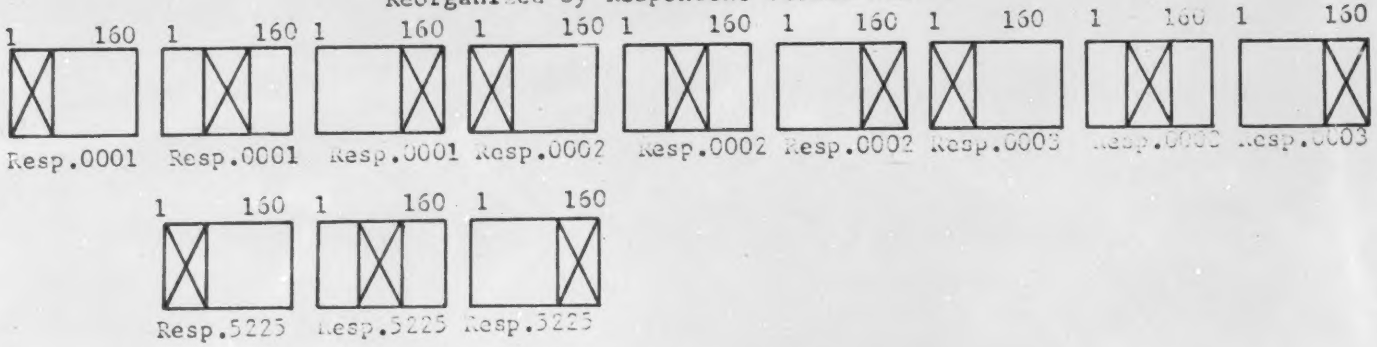
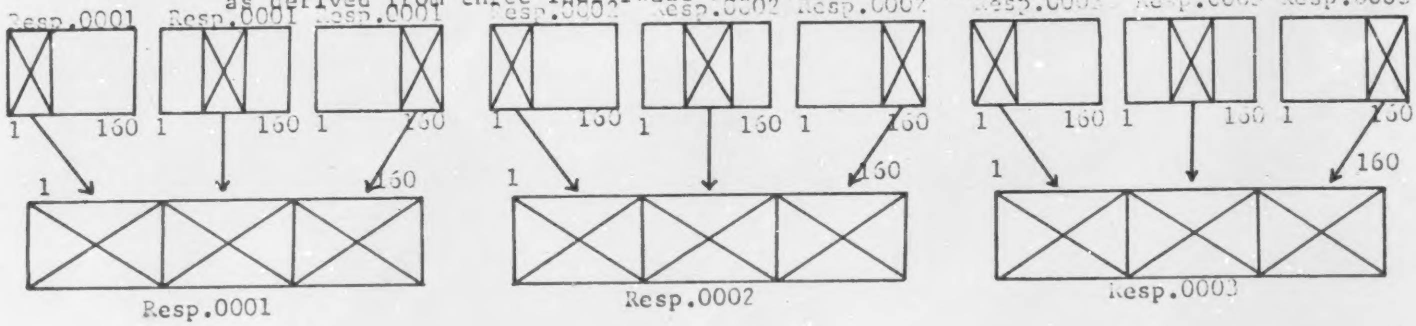

1 160
Resp.0001
Resp.0001
Resp.0001
Resp.0002
Resp.0002
Resp.0002
Resp.0003
Resp.0003
Resp.0003
Resp.5225
Resp.5225
Resp.5225

Figure 24

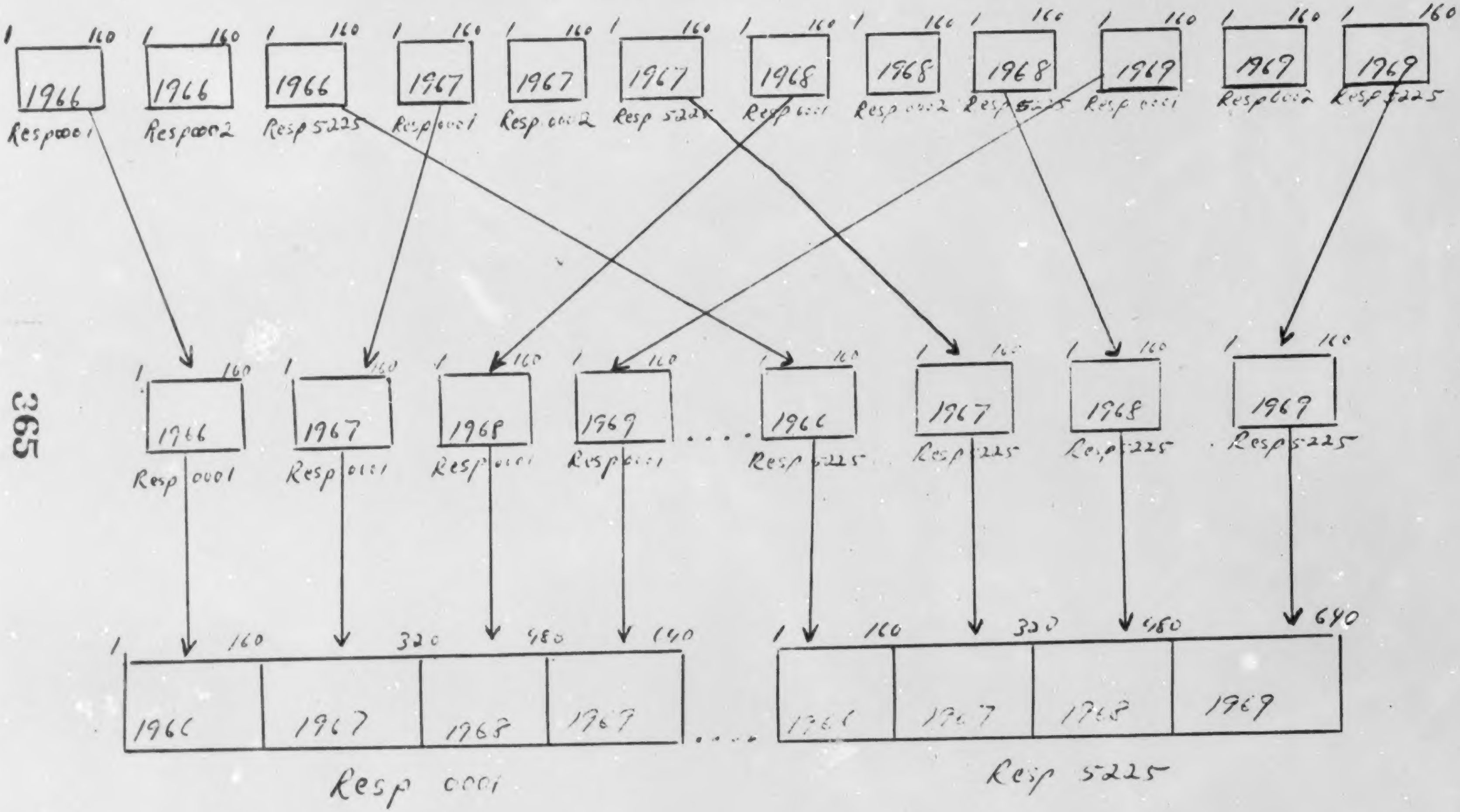
Final record for one year
as derived from three individual sub records for that year


Resp.0001
Resp.0001
Resp.0001
Resp.0002
Resp.0002
Resp.0002
Resp.0003
Resp.0003
Resp.0003
1 160
1 160
Resp.0001
Resp.0002
Resp.0003

*[a] X Indicates Location of Data in the Record

Figure 25

Procedure Through Which Complete
160 Column Records for Each Survey
Year Were Sorted and Merged into
a Final Longitudinal Record


1966 Resp0001
1966 Resp0002
1966 Resp 5225
1967 Resp0001
1967 Resp 0002
1967 Resp 5225
1968 Resp 0001
1968 Resp 0002
1968 Resp 5225
1969 Resp 0001
1969 Resp 0002
1969 Resp 5225
1 160
1 160 320 480 640
1966 1967 1968 1969
Resp 0001
Resp 5225

of programs or jobs were being run simultaneously -- one of the capabilities of virtual systems -- SPSS was often forced to wait so long for operating space that time parameters were exceeded and the job was cancelled. This meant that many of the runs had to be made at night or during the weekend when other use was relatively light.

Appendix B

Table of Contents Basic Cross-sectional Record

		Location	Page
VAR001	Serial Number of respondent	1-4	1 of 1
VAR085		161-4	
VAR169		321-4	
VAR253		481-4	
VAR002	Survey identification code	5	1 of 1
VAR086		165	
VAR170		325	
VAR254		485	
VAR003	Marital status	6	1 of 1
VAR087		166	
VAR171		326	
VAR255		486	
VAR004	Age	7-8	1 of 1
VAR088		167-8	
VAR172		327-8	
VAR256		487-8	
VAR005	Race	9	1 of 1
VAR089		169	
VAR173		329	
VAR257		489	
VAR006	Number family members; reason not interviewed	10-11	1 of 1
VAR090		170-1	
VAR174		330-1	
VAR258		490-1	
VAR007	SMSA location	12	2 of 1
VAR091		172	
VAR175		332	
VAR259		492	
VAR008	Training or educational course last 12 months	13	2 of 1
VAR092		173	
VAR176		333	
VAR260		493	
VAR009	Whether training course completed	14	2 of 1
VAR093		174	
VAR177		334	
VAR261		494	
VAR010	Whether lives in same or different SMSA from last year (1967, 1968, 1969)	15	2 of 1
VAR094		175	
VAR178		335	
VAR262		495	

		Location	Page
VAR011	Auspices of high school (1967 only)	16	2 of 1
VAR095		176	
VAR179		336	
VAR263		496	
VAR012	I.Q. score in quintiles (1967 only)	17	3 of 1
VAR096		177	
VAR180		337	
VAR264		497	
VAR013	I.Q. actual score (1967 only)	18-20	3 of 1
VAR097		178-80	
VAR181		338-40	
VAR265		498-500	
VAR014	Number of full-time teachers (1967 only)	21	3 of 1
VAR098		181	
VAR182		341	
VAR266		501	
VAR015	Per pupil expenditure (1967 only)	22	3 of 1
VAR099		182	
VAR183		342	
VAR267		502	
VAR016	Year last enrolled in high school (1966 only)	23-24	4 of 1
VAR100		183-4	
VAR184		343-4	
VAR268		503-4	
VAR017	Type of high school curriculum in last year attended (1966 and 1967)	25	4 of 1
VAR101		185	
VAR185		345	
VAR269		505	
VAR018	Feeling about high school experience (1966 only)	26	4 of 1
VAR102		186	
VAR186		346	
VAR270		506	
VAR019	Degree received beyond high school (1966 only)	27	4 of 1
VAR103		187	
VAR187		347	
VAR271		507	
VAR020	Employment status recode	28	4 of 1
VAR104		188	
VAR188		348	
VAR272		508	
VAR021	Hours usually worked in current job (1967, 1968, 1969)	29-30	5 of 1
VAR105		189-90	
VAR189		349-50	
VAR273		509-10	

		Location	Page
VAR022	Method unemployed used to look for job during last four weeks	31-32	5 of 1
VAR106		191-2	
VAR190		351-2	
VAR274		511-2	
VAR023	Occupation of current - last job	33-35	5 of 1
VAR107		193-5	
VAR191		353-5	
VAR275		513-5	
VAR024	Class of worker	36	5a of 1
VAR108		196	
VAR192		356	
VAR276		516	
VAR025	How found current -last job	37-38	5a of 1
VAR109		197-8	
VAR193		357-8	
VAR277		517-8	
VAR026	Year started current job	39-40	6 of 1
VAR110		199-200	
VAR194		359-60	
VAR278		519-20	
VAR027	Month started current job	41-42	6 of 1
VAR111		201-2	
VAR195		361-2	
VA[illegible]9		521-2	
VA[illegible]28	Industry of current or last job	43-45	6 of 1
VAR112		203-5	
VAR196		363-5	
VAR280		523-5	
VAR029	Same or different employer from last year (1967-1969)	46	6 of 1
VAR113		206	
VAR197		366	
VAR281		526	
VAR030	Reason left job held in preceding year (1967-1969)	47-48	7 of 1
VAR114		207-8	
VAR198		367-8	
VAR282		527-8	
VAR031	Reason left job held in 1967 (1969 only)	49-50	7 of 1
VAR115		209-10	
VAR199		369-70	
VAR283		529-30	
VAR032	Labor force group A, B and C or other	51	7 of 1
VAR116		211	
VAR200		371	
VAR284		531	

		Location	Page
VAR033	Attitude toward current job	52	7 of 1
VAR117		212	
VAR201		372	
VAR285		532	
VAR034	Hours usually worked in past 12 months	53	8 of 1
VAR118		213	
VAR202		373	
VAR286		533	
VAR035	Number of weeks looking for work or on layoff	54-55	
VAR119		214-5	
VAR203		374-5	
VAR287		534-5	
VAR036	Stretches of unemployment in past 12 months	56	8 of 1
VAR120		216	
VAR204		376	
VAR288		536	
VAR037	Number of employers in 12 months prededing 1966 Survey (1966 only)	57	8 of 1
VAR121		217	
VAR205		377	
VAR289		537	
VAR038	Occupation of job in last year attended high school Full-time - 3 digits (1966 only)	58-60	8 of 1
VAR122		218-20	
VAR206		378-80	
VAR290		538-40	
VAR039	Occupation of job in last year attended high school full-time - 1 digit (1966 only)	61-62	9 of 1
VAR123		221-2	
VAR207		381-2	
VAR291		541-2	
VAR040	How respondent with job in last year attended high school full-time (1966 only) Found Job	63-64	9 of 1
VAR124		223-4	
VAR208		383-4	
VAR292		543-4	
VAR041	Industry first job after stopped attending school full-time - 3 digit (1966 only)	65-67	9 of 1
VAR125		225-7	
VAR209		385-7	
VAR293		545-7	
VAR042	Industry of first job since stopped going to school full-time - 1 digit (1966 only)	68-69	10 of 1
VAR126		228-9	
VAR210		388-9	
VAR294		518-9	
VAR043	Method used to find first job after going to school full-time (1966 only)	70-71	10 of 1
VAR127		230-1	
VAR211		390-1	
VAR295		550-1	

		Location	Page
VAR044	Year started first job since stopped going to school full-time	72-73	10 of 1
VAR128		232-3	
VAR212		392-3	
VAR296		552-3	
VAR045	Month started first full-time job since going to school full-time	74-75	10 of 1
VAR129		234-5	
VAR213		394-5	
VAR297		554-5	
VAR046	Year stopped first job since ceased going to school full-time (1966 only)	76-77	11 Of 1
VAR130		236-7	
VAR214		396-7	
VAR298		556-7	
VAR047	Reason left first job since stopped going to school full-time (1966 only)	78-79	11 of 1
VAR131		238-9	
VAR215		398-9	
VAR299		558-9	
VAR048	Number of weeks worked past 12 months	80-81	11 of 1
VAR132		240-1	
VAR216		400-1	
VAR300		560-1	
VAR049	Number of weeks not working or looking for work	82-83	11 of 1
VAR133		242-3	
VAR217		402-3	
VAR301		562-3	
VAR050	Industry of job in last year of attending school full-time- 3 digit (1966 only)	84-86	11 of 1
VAR134		244-6	
VAR218		404-6	
VAR302		564-6	
VAR051	Industry of job in last year attended school full-time (1966 only)	87-88	12 of 1
VAR135		247-8	
VAR219		407-8	
VAR303		567-8	
VAR052	Is respondent head of household	89	12 of 1
VAR136		249	
VAR220		409	
VAR304		569	
VAR053	There is no data on this variable	90	12 of 1
VAR137		250	
VAR221		410	
VAR305		570	
VAR054	Number of weeks unemployed with compensation received	91-92	12 of 1
VAR138		251-2	
VAR222		411-2	
VAR306		571-2	

		Location	Page
VAR055	Earned income of respondent last 12 months- before deductions categorized	93-94	13 of 1
VAR139		253-4	
VAR223		413-4	
VAR307		573-4	
VAR056	Living with parents (1966-7), respondent and wife live alone (1968-9)	95	13 of 1
VAR140		255	
VAR224		415	
VAR308		575	
VAR057	Number of persons dependent on respondent	96	13 of 1
VAR141		256	
VAR225		416	
VAR309		576	
VAR058	There is no data on this variable	97	13 of 1
VAR142		257	
VAR226		417	
VAR310		577	
VAR059	Comparison prior to current address (1966 only)	98	14 of 1
VAR143		258	
VAR227		418	
VAR311		578	
VAR060	Father's occupation when respondent was 14 (1966 only)	99-101	14 of 1
VAR144		260-1	
VAR228		420-1	
VAR312		580-1	
VAR061	Duncan of father's occupation when respondent was 14 (1966 only)	102-3	14 of 1
VAR145		262-3	
VAR229		422-3	
VAR313		582-3	
VAR062	Number of years of respondent's education	104-5	14 of 1
VAR146		264-5	
VAR230		424-5	
VAR314		584-5	
VAR063	Occupation of current-last job	106-7	14 of 1
VAR147		266-7	
VAR231		426-7	
VAR315		586-7	
VAR064	Duncan SEI of current or last job	108-9	14 of 1
VAR148		268-9	
VAR232		428-9	
VAR316		588-9	
VAR065	Industry of current-last job	110-1	15 of 1
VAR149		270-1	
VAR233		430-1	
VAR317		590-1	

		Location	Page
VAR066	Hourly rate of pay current-last job	112-3	15 of 1
VAR150		272-3	
VAR234		432-3	
VAR318		592-3	
VAR067	Occupation when started first job after stopped attending school first time (1966 and 1969)	114-5	15 of 1
VAR151		274-5	
VAR235		434-5	
VAR319		594-5	
VAR068	Location of job (1967,1968,1969)	116	16 of 1
VAR152		276	
VAR236		436	
VAR320		596	
VAR069	Whether first job since stopped going to school full-time	117	16 of 1
VAR153		277	
VAR237		437	
VAR321		597	
VAR070	Duncan SEI of first job since stopped going to school fulltime	118-9	16 of 1
VAR154		278-9	
VAR238		438-9	
VAR322		598-9	
VAR071	Knowledge of world of work	120-1	16 of 1
VAR155		280-1	
VAR239		440-1	
VAR323		600-1	
VAR072	Net assets (1966 only)	122	16 of 1
VAR156		282	
VAR240		442	
VAR324		602	
VAR073	Total family income past 12 months	123-4	17 of 1
VAR157		283-4	
VAR241		443-4	
VAR325		603-4	
VAR074	Occupation of father when respondent 14 - 1 digit (1966 only)	125-6	17 of 1
VAR158		285-6	
VAR242		445-6	
VAR326		605-6	
VAR075	Cultural exposure - access to newspapers, library card, magazines, at 14 (1966 only)	127	17 of 1
VAR159		287	
VAR243		447	
VAR327		607	
VAR076	Family responsibility index	128-9	18 of 1
VAR160		288-9	
VAR244		448-9	
VAR328		608-9	

		Location	Page
VAR077 VAR161 VAR245 VAR329	Comparison job status 1966-69 (1969 only)	130 290 450 610	18 of 1
VAR078 VAR162 VAR246 VAR330	Number of interfirm moves since 1967 (1969 only)	131-2 291-2 451-2 611-2	18 of 1
VAR079 VAR163 VAR247 VAR331	Rotter internal-external scale (1968 only)	133-4 293-4 453-4 613-4	18 of 1
VAR080 VAR164 VAR248 VAR332	Actual earned income - actual amount	135-8 295-8 455-8 615-8	18 of 1
VAR081 VAR165 VAR249 VAR333	Current rate of pay - actual amount	139-42 299-02 459-62 619-22	19 of 1
VAR082 VAR166 VAR250 VAR334	Weight (1966 only)	143-6 303-6 463-6 623-6	19 of 1
VAR083 VAR167 VAR251 VAR335	Car ownership (1966 only)	156 316 476 636	19 of 1
VAR084 VAR168 VAR252 VAR336	Length of time living at current address (1966 only)	157-8 317-8 477-8 637-8	19 of 1

Appendix C

Procedures Used to Conduct the Analysis

The analysis was conducted between December 1973 and April 1974 on the same IBM-145 used to create the data file. The Statistical Package for the Social Sciences (SPSS) was used in the analysis, partly because of the researcher's familiarity with the package and partly because of the variable manipulation and transformation capabilities of this prepackaged program, which is ideally suited for questionnaire analysis. The updated version of the SPSSH -- Version V -- was used. A graduate student in sociology was employed half time as a programmer, although the researcher assumed primary responsibility for conducting the analysis. The degree to which responsibility for this type of analysis could be delegated is a critical question. If this effort is any indication, there are definite limits to which this should be done. When the researcher does not conduct much of the analysis himself, he loses a feel for the data and is not able to identify programming errors, especially those involving logic. Furthermore, a person not familiar with the conceptual framework of the study should not be placed in the position of having to make policy judgments when conducting the analysis, and this will occur unless the researcher is ~~not~~ continually involved with the data. Another reason that the researcher should be heavily involved in the analysis is that involvement often leads to what Merton labels serendipitious discoveries that would not otherwise be possible.

The reader will recall that data on selected variables in the original surveys were recoded and transferred into 5225 640-character block records and transferred onto magnetic tape. Several copies were made to protect against inadvertent destruction, and one of these copies was physically removed from the computer center, because of the researcher's belief that multiple storage in a single location is not completely secure. Initial cross-tabulations and frequency distributions were run from the magnetic tapes. This required rather extensive SPSS programs, since each of the variables to be "read" had to be formatted and recoded, and not-applicable values had to be declared missing lest they show up as categories in the cross-tabulations. A Fortran format procedure not described in the SPSS manual was utilized under which the actual format was written for only the first survey year in 1966 and multiplied by four. This produced a SPSS input format statement which "read" selected variables in each of the four years simultaneously. A special SPSS nomenclature convention -- VAR001 to VARXXX -- was utilized to simplify programming and to avoid having to devise names for each of the 340 variables. All the variables had originally been identified in this manner so this convention could be used. An attempt was made to format all 340 variables -- 85 in each survey year -- but SPSS could not handle this number of variables in a single format statement. A choice then had to be made whether to restrict the format to a few variables under immediate consideration or whether to write more inclusive format statements that would include variables that would be used at some future time. The latter course of action was chosen so that new format statements would not have to be written each time a new series of variables was examined. Long formal statements increased the amount of time required by the computer to read the data, but this caused less inconvenience than having to continually write new statements.

The size of the resulting program decks grew rapidly and often included as much as four or five hundred cards. This was in part the result of a decision to put control statement referring to each variable on a separate IBM "punch" card. SPSS allows the programmer to write programming instructions in card columns 16 to 80, and instructions for more than one variable can be placed on the same card. This researcher had always felt this, like the use of acronymns as variable names, to be rather confusing and inefficient, since it impedes subsequent modification or elimination of instructions referring to a single variable. This results in large data decks, as shown in Appendix I, but the program is much clearer. The program used to create one longitudinal job finding variable is also shown in Appendix J.

Part way through the analysis, concern developed over the large amount of computer time needed to read the data and the large size of the data decks. It was decided to create or "save" an SPSS system file and store this system file on a disk which is a special computer storage medium where data, in the form of electrical impulses, can be temporarily stored and retrieved. The advantage of such a procedure is that it eliminates mounting magnetic tapes on a tape drive each time the data is to be run and eliminates the need to insert all the various labeling and recode cards, since the data is read onto the disk after all the special instructions have been carried out. This is a much more efficient way of handling large amounts of data, saves considerable computer time, and reduces the chance of programming errors. Some problems were initially encountered generating the SPSS system file because of some rather peculiar ways SPSS organized the system file on the disk. The data filled 22 cylinders on a disk pack, a relatively large amount of space. The main problems that occurred with the use of SPSS system file was the inability to alter variables which had already been recoded on the file and to determine which variables had in fact been recoded, since the printouts did not indicate these original recodes.

The major problems confronted in the analysis were the large number of variables being examined, the complexity of some of the specially created variables, and the use of tabular rather than statistical control procedures. Most discussion of controls through tabular presentation refers to examples where dichotomous variables are used as controls. Thus, one example of an extraneous relationship is that social class might be the original cause of relationship between race and voting behavior. When nondichotomous variables are used as controls -- age and education are examples -- the relationships become much more complex, since the "original" relationship may operate differently in each of the categories of the control variable.

Computer turnaround was generally quite adequate during the months in which the study was conducted. Overnight turnaround was always available and on weekends and holidays it was usually possible to get a program returned within several hours. This was partly because of the nature of the virtual operating system -- VS2 -- being used at the Computer Center, which allows several users to run simultaneously, and partly because of the limited number of faculty and students running jobs of this type. An increase in the amount of care -- from 512K to 1024K -- in early January 1974 also had a salutary effect on turnaround. Computer usage over the 12-month period in which the data file was created and the analysis conducted was large; various measures are shown in Table 111 . Total time based on partition clock time exceeded 300 hours, well over two million lines were printed. Such large computer use is admittedly burdensome, but there is no substitute for the computer as a means of generating and testing new knowledge in today's society.

Table 111

Computer* Utilization July 1973 thru April 1974

Month	Number Runs	Partition Clock Time (PCT)	Central Processing Utilization (CPU)	Lines Printed	Phase
July	200	16.54	4.29	41,221	File Generation
August	437	47.14	17.45	389,787	"
September	49	4.57	1.39	120,991	"
October	0	0.0	0.00	0	
November	4	.02	0.08	3,772	creation special variables, identification subsamples and descriptive job finding
December	75	11.16	4.04	72,920	
January	165	33.50	12.42	222,758	
February	284	63.57	28.24	365,347	more extensive analysis
March	265	76.27	22.63	710,497	
April	111	34.01	12.12	323,182	
Total	1590	300.64	102.66	2,250,475	

*IBM 370-145; 1024K real storage with a VS2 operating system.

Appendix D

Selected Characteristics of Jobs Found Through Various Job Finding Channels in 1969 by Race

Race	Method Utilized	Major Occupational Group	Occupational Code #	Occupational Code 3 digit code	Occupational Code 3 digit title	Hourly Pay 1=$0-1.49 2=1.50-2.99 3=3.00+	Duncan SEI 1=low 2=mod. 3=high	Median job quality 1=low 2=mod 3=high	Social class 1=lower half 2=top half
whites	Public	white-collar	1	164	radio oper	1 in 1st	6 in 2nd	1.88	3 in 1st
			1	325	office mach. operator	2 in 2nd	7 in 3rd		4 in 2nd
			2	370	clerical (NEC)*	4 in 3rd			
			3	395	salesmen				
blacks	Public	white-collar	1	82	civil eng.	6 in 2nd	2 in 1st	1.70	5 in 1st
			1	165	recreation worker				4 in 2nd
			1	324	office boy	3 in 3rd	5 in 2nd		
			1	343	shipping clerk		2 in 3rd		
			1	350	stock clerk				
			3	370	clerical (NEC)				
whites	Employer	white-collar	1	12	pilot	4 in 1st	8 in 1st	1.88	13 in 1st
			3	74	draftsmen	31 in 2nd	39 in 2nd		48 in 2nd
			1	75	reporter	25 in 3rd	14 in 3rd		
			1	84	industrial engineer				
			1	101	entertainer				
			1	111	librarian				
			1	160	pharmacist				
			1	161	photographer				
			1	183	secondary schoolteacher				
			1	191	technician				
			2	195	prof. tech. (NEC)				
			5	290	manager (NEC)				
			1	312	cashier				

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*Not Elsewhere Classified

Race	Method	Occ. Group	#	Occ. Code Code	Occ. Code Title	Hourly Pay	Duncan	Job Quality	SES69
blacks	Employer	white-collar	1	324	office boy	2 in 1st 9 in 2nd 7 in 3rd	2 in 1st 14 in 2nd 5 in 3rd	1.97	11 in 1st 10 in 2nd
			2	325	office mach. operator				
			1	333	payroll clerk				
			5	343	shipping clerk				
			5	350	stock clerk				
			10	370	clerical (NEC)				
			17	394	salesmen (NEC)				
			1	171	social worker				
			1	195	prof. tech(NEC)				
			2	290	managerial(NEC)				
			1	301	agent (NEC)				
			2	340	postal clerk				
			2	343	shipping clerk				
			8	350	stock clerk				
			2	370	clerical (NEC)				
			2	394	salesmen (NEC)				
whites	Friends-Relatives	white-collar	1	0	accountants & auditors	10 in 1st 46 in 2nd 41 in 3rd	14 in 1st 68 in 2nd 26 in 3rd	1.97	27 in 1st 81 in 2nd
			1	71	dentists				
			2	75	editors & reporters				
			1	111	librarians				
			1	161	photographers				
			1	180	sports instructors				
			1	181	surveyors				
			1	182	teachers, elementary				
			1	183	teachers, secondary				
			1	251	buyers & shippers farm prod.				
			12	290	managers (NEC)				
			5	314	vehicle dispatcher				

Race	Method	Occ. Group	#	Occ. Code Code	Title	Hourly Pay	Duncan	Job Quality	SES69
			9	343	shipping clerk				
			7	350	stock clerk				
			3	385	insurance				
			26	394	salesman(NEC)				
			4	74	draftsmen				
			4	120	musicians				
			6	195	prof. (NEC)				
			1	253	credit men				
			1	262	managers, superintend. bldg.				
			2	302	attendants, library				
			1	310	bookkeepers				
			1	320	file clerks				
			1	324	messengers, office boys				
			1	325	office mach. operators				
			1	333	payroll clerks				
			1	353	telephone operators				
			2	352	telegraph operators				
			1	383	hucksters, peddlers				
			1	396	newsboys				
blacks	Friends-Relatives	white-collar	3	120	cian	2 in 1st	3 in 1st	1.9	6 in 1st
			2	195	prof. (NEC)				
			2	312	vehicle dispatchers	11 in 2nd	16 in 2nd		15 in 2nd
			1	341	receptionist	7 in 3rd			
			3	343	shipping clk				
			4	350	stock clerk				
			5	370	clerical(NEC)				
			1	395	stock & bond salesmen				

Race	Method	Occ. Group	#	Occ. Code Code	Title	Hourly Pay	Duncan	Job Quality	SES69
whites	Employer	service	1	812	attendant		17 in 1st	1.3	19 in 1st
			1	813	attendant	4 in 1st	2 in 2nd		
			5	825	cook	12 in 2nd			
			3	830	counter wkr				
			2	832	steward	2 in 3rd			
			2	834	janitor				
			1	843	hairdresser				
			2	850	firemen				
			1	851	doorkeeper				
			1	890	service(NEC)				
blacks	Employer	service	2	810	hospital attendant	4 in 1st	10 in 1st	1.5	10 in 1st
			1	812	attendant	4 in 2nd			
			1	825	cook				
			1	830	counter wkr	1 in 3rd			
			1	834	janitor				
			3	835	kitchen wkr (NEC)				
			1	841	porter				
whites	Friends-Relatives	service	1	801	babysitter private				
			1	813	recreation attendant	7 in 1st	27 in 1st	1.3	28 in 1st
			1	815	bartender	13 in 2nd	1st in 2nd		
			2	824	charmen and cleaners				
			3	825	cooks-nonpvt	4 in 3rd			
			1	830	fountain wkr				
			7	834	janitors/ sextons				
			5	835	kitchen wkrs non-pr.(NEC)				
			1	851	guards,watch-men				
			1	853	policemen & detectives				
			2	875	waiter,waitress				
			3	870	service wkrs. non-pr.(NEC)				

Race	Method	Occ. Group	#	Occ. Code	Code Title	Hourly Pay	Duncan	Job Quality	SES69
blacks	Friends-Relatives	service	2	810	hospital attendant	4 in 1st	28 in 1st	1.3	28 in 1st
			1	813	recreation attendant	18 in 2nd			
			1	820	bootblacks	4 in 3rd			
			3	824	charwomen & cleaners				
			3	825	cooks,non-pr				
			1	831	elevator oper				
			1	832	housekeeper, non-pr.				
			6	834	janitor & sexton				
			2	835	kitchen wkr, non-pr.				
			4	841	porter				
			1	851	guard				
			2	875	waiter, waitress				
			1	890	service wkrs, non-pr.(NEC)				
whites	Schools	white-collar	1	0	accountant, auditor				
			1	12	airplane pilot navigator	6 in 1st	19 in 1st	2.00	9 in 1st
			1	120	musicians, music tchr.	15 in 2nd	11 in 2nd		21 in 2nd
			1	180	sports inst., officials	6 in 3rd			
			1	183	teachers, secondary				
			1	184	teachers(NEC)				
			2	191	technicians, other engin.				
			6	195	prof,technical (NEC)				
			2	302	library ass't				
			1	310	bookkeeper				
			1	312	cashier				
			1	333	payroll clerk				
			1	342	secretary				
			1	353	telephone oper.				

Race	Method	Occ. Group	#	Occ. Code Code	Title	Hourly Pay	Duncan	Job Quality	SES69
blacks	School	white-collar	1	354	ticket agt.				
			1	360	typist				
			3	370	clerical(NEC)				
			4	394	salesmen(NEC)				
			1	10	actor,actress	3 in 1st	2 in 1st	1.9	6 in 1st
			1	74	draftsman				
			1	82	civil engin.	5 in 2nd	7 in 2nd		6 in 2nd
			1	195	prof.&tech. (NEC)	4 in 3rd	3 in 3rd		
			1	302	library ass't				
			1	324	messenger, office boy				
			1	340	postal clk.				
			1	343	shipping clk.				
			1	360	typist				
			2	370	clerical(NEC)				
			1	394	salesman(NEC)				
whites	School	service	3	830	fountain wkr.				
			2	832	housekpr, non-pr.	3 in 1st	12 in 1st	1.5	12 in 1st
			2	834	janitor, sexton	4 in 2nd			
			2	835	kitchen wkr, (NEC)	1 in 3rd			
			1	851	guard, watchmen				
			1	875	waiter, waitress				
			1	896	service wkrs, non-pr, (NEC)				
blacks	School	service	2	810	hospital att.				
			1	830	fountain wkr	3 in 1st	5 in 1st	1.2	5 in 1st
			1	839	janitor, sexton	1 in 2nd			
			1	890	service wkrs non-pr,(NEC)	1 in 3rd			
whites	Public Employment Service	blue-collar	1	450	inspector (NEC)	1 in 1st	16 in 1st	1.4	15 in 1st
			1	465	machinist	6 in 2nd	4 in 1st		5 in 2nd

Race	Method	Occ. Group	#	Occ. Code Code	Title	Hourly Pay	Duncan	Job Quality	SES69
			2	472	auto mech.	13 in 3rd			
			2	631	assembler				
			1	650	deliveryman				
			1	685	mine oper.				
			3	715	truck driver				
			4	775	operators (NEC)				
			1	963	garage laborers				
			1	973	warehouseman (NEC)				
			3	981					
blacks	Public	blue-collar	1	405	brickmason	14 in 2nd			
			1	470	air cond. repairman		19 in 1st	1.4	20 in 1st
			1	472	auto mech.	6 in 3rd	1 in 2nd		
			1	495	painter				
			1	620	apprentice, other				
			1	632	auto attend.				
			1	650	deliveryman				
			1	693	packers (NEC)				
			2	715	truck driver				
			8	775	operators (NEC)				
			2	985	laborers (NEC)				
whites	Private Employment Service	white-collar	1	14	artist, art teacher				
			1	191	engineering technicians				
			1	285	purchas. agt	5 in 2nd	8 in 2nd	2.0	1 in 1st
			1	290	managers (NEC)	9 in 3rd	6 in 3rd		13 in 2nd
			1	310	bookkeeper				
			5	370	clerical (NEC)				
			2	385	insur. agt.				
			1	394	salesman				
blacks	Private Employment Service	white-collar	1	373		3 in 2nd	1 in 1st	1.5	1 in 1st
			1	343	shipping clk		2 in 2nd		2 in 2nd
			1	370	clerical (NEC)				

Appendix E

Survey of Studies Indicating Which Information Channels were Successfully Used by Job Seekers

				CHANNELS									
				FORMAL						INFORMAL			
Author(s)*	Date of Study	Labor Market Area	Size of Population	1	2	3	4	5	6	7	8	9	10
				%	%	%	%	%	%	%	%	%	%
1. Adams-Aronson	1949-50	Auburn, N.Y.		2	-	-	-	-	-	22	52	12	12
2. Belzung-Owen-MacNaughton	1962-63	Baytown, Tex.	245	-	-	8	6	9	-	27	39	-	13
3. deSchwainitz	1930	Philadelphia, Pa.		-	2	3	-	-	-	58	23	-	14
4. Ferman	1963	Detroit, Mich.	185	1	1	1	40	16	-	9	27	-	5
5. Heneman-Fox-Yoder	1947-48	Minneapolis, Minn.		6	5	14	7	-	-	30	32	-	6
6. Kaufman-Schaefer-*et al.*	1965	(nine cities)		7		5	-	-	23	26	34	-	5
7. Lurie-Rayack	1964	Middletown, Conn.		2	10	3	4	-	-	36	45	-	-
8. MacQuown	1966		8,658	4	23	11	-	-	-	12	37	-	13
9. Miernyk	1951-53	Lowell, Mass.		9	-	9	2	-	-	36	35	-	9
		Lawrence, Mass		3	-	7	1	-	-	50	35	-	4
		Fall River, Mass.		5	-	3	1	-	-	59	29	1	2
		New Bedford, Mass.		3	-	-	3	-	-	39	42	11	2
		Providence, R.I.		3	-	7	3	-	-	32	42	-	13
10. Myers-Schultz	1948-49	Nashua, N.H.		5	-	3	3	-	-	38	16	33	2
11. Myers-Maclaurin	1937-40	Fitchburg, Mass.		1	1	2	-	-	-	39	33	22	2
12. Reynolds	1947	(factory city)	350	13	-	5	1	-	-	27	42	8	4
13. Reynolds-Shister	1947	New Haven, Conn.	450	13	-	13	5	-	-	28	20	13	8
14. Sheppard-Belitsky	1966	Erie, Pa.	136	14	-	4	5	-	-	56	-	14	7
15. Sheppard-Ferman-Faber	1957-58	Detroit, Mich.	116	5	-	3	-	-	-	34	30	22	6
16. Ullman-Taylor	1961-63	Chicago, Ill.	354	3	10	14	-	-	16	37	9	8	1
17. Wilcock-Franke	1960-62	Columbus, Ohio		4	-	-	-	12	-	37	32	-	15
		Oklahoma City, Okla.		4	-	-	-	3	-	33	40	-	20
		E. St. Louis, Ill.		3	-	-	-	7	-	53	22	-	15
		Peoria, Ill.		5	-	-	-	5	-	43	31	-	16
		Fargo, N.D.		9	-	-	-	7	-	31	35	-	18
18. Wilcock-Sobel	1952	Kankakee, Ill.		8	-	19	-	-	-	46	23	3	1
19. Minnesota B.E.S.	1966	St. Paul, Minn.	3,735	9	6	9	7	-	7	36	24	-	2
20. St. Paul, Minnesota B.E.S.	1965	St. Paul, Minn.	5,700	8	6	8	6	-	6	32	22	-	12
21. Ohio B.U.C.	1962-63	(six cities)	1,430	8	7	14	6	-	-	24	30	-	11
22. U.S.E.S.	1958-62	(eight cities)		16	4	11	-	-	-	23	36	-	10
23. Lansing-Mueller	1962-63	National Sample	330	3	4	5	3	-	-	30	31	-	10
24. Kahn	1956	Midlands (England)	447	13	-	13	3	-	-	46	24	-	1
25. Wedderburn	1963	Midlands (England)	246	15	-	12	3	-	-	31	32	-	7
26. Ried	1966-68	Midlands (England)	590	15	15	20	2	-	-	33	19	-	8
27. Ried	1966-68	Midlands (England)	185	12	2	22	5	-	-	32	20	-	8
28. Dyer	1970	Southern California	90	-	2	12	2	6	-	22	12	-	34

*CHANNEL CODES: 1) Public Employment Agency, 2) Private Employment Agency, 3) Newspaper Advertisements, 4) Union, 5) Employer Assistance, 6) Educational Institution Placement Bureau, 7) Friends and Relatives, 8) Direct Application Without Prior Knowledge of Openings, 9) Recall to Previous Job, and 10) Other, and Not Known.

*Stevens, Supplemental Labor Market Information..., 4.

*See Bibliography for citations

Appendix F

SUMMARY OF DATA ON SEVENTEEN STUDIES OF JOB DISPLACEMENT[a]

N – Number of cases. Indicated only when the number differs from the size of the study sample (Col. 5). n.i. – Not indicated in study.

Study (and year begun)	Location	Industry	Number of Displaced Workers	Size of Study Sample	Duration of Study Period[b] (mos.)	Severance Pay	Workers With New Jobs (percentages unless otherwise indicated)												Significant Factors Affecting Reemployability
							Skill Level Relative to Old Job[c]			Wages Relative to Old Job			Reemployed In Same Industry	Self-Employed	Employed In Same Kind of Work	Method by Which New Job Found		Reemployed Within One Month[f]	
							Same	Lower	Higher	Same	Lower	Higher				Formal[d]	Informal[e]		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Robert J. Myers 1929	Chicago, Ill.	clothing mfg	300 500	370	18	$500 to voluntary quits	not indicated			23.2	46.4 (N = 276)	30.4	20.0	4.6	20.3	not indicated		40.0 (N = 240)	Age and Sex. Men in the 35-39 age group were more successful than others.
Lubin 1929	3 major metropolitan labor markets	20 industries	n.i.	750	12	n.i.	not indicated			27.1	48.0 (N = 410)	18.8[g]	32.7 (N = 410)	n.i.	45.9 (N = 410)	not indicated		11.0 (N = 410)	Age. Workers under 45 years were more successful than others.
Clague, Couper, and Bakke 1929	New Haven, Conn.	rubber (footwear) mfg.	729	672	11	based on service	32	57 (N = 158)	11	h	72.7 (N = 502)	h	n.i.	3.2 (N = 523)	n.i.	n.i.	82.7[i]	62.1 (N = 518)	Skill. Skilled men were less successful than unskilled men. Sex. Younger women were more successful than men.
Clague, Couper, and Bakke 1929	Hartford, Conn.	rubber (tires) mfg	1,105	534	11	none	not indicated			h	91.2 (N = 420)	h	n.i.	n.i.	n.i.	not indicated		56.5 (N = 441)	
Palmer and Williams 1936	Philadelphia, Pa.	textile (hosiery) mfg	1,745	673	30	n.i.	not indicated			not indicated			j	n.i.	n.i.	not indicated		26.4 (N = 617)	Skill. Reemployment was related to skills adaptable to changing technology Age. Workers over 50 years were less successful
Creamer and Coulter 1936	Manchester, N. H.	textile mfg.	15,000	1,068	13-22	n.i.	not indicated			not indicated			25.4 (N = 319)	n.i.	n.i.	not indicated		23.7 (N = 310)	Age. Workers over 55 years were less likely to find jobs. Sex. Women under 34 years were less likely to be reemployed than men; women over 34 years had the same chance as men.
Creamer and Swackhamer 1937	Manchester, N. H.	cigar mfg.	600	328	60	none	not indicated			k	k	k	40.6[l] (N = 143)	39.6[m] (N = 116)	n.i.	not indicated		12.9 (N = 116)	Age. Older workers were less successful than others. Skill. Obsolescence of skills made reemployment difficult.
Myers and Shultz 1948-49	Nashua, N. H.	textile mfg.	3,500	sample I 55 quits	10	n.i.	64	20 (N = 51)	9[g]	14	54	23[g]	43	n.i.	n.i.	2.0	78.0	82.0	Early Quitters. Workers who quit before shutdown had more success than others.
				sample II 150 layoffs			73	17	4[g]	37	41	14[g]	68			4.0	83.0	65.0	
Adams and Aronson 1949-50	Auburn, N. Y.	heavy machinery mfg.	1,707	334[n]	18-54[n]	based on service	56	28 (N = 141 at 54 months)	16	34	28 (N = 145 at 54 months)	37	38 (N = 145 at 54 months)	n.i.	41 (N = 309 at 18 months)	1.3	79.0 (N = 145 at 54 months)	n.i.	Available job opportunities more important than personal and social attitudes.
Sheppard and Stern 1956	Detroit, Mich.	auto parts mfg.	5,000 (approx.)	348	12	none	not indicated			not indicated			n.i.	n.i.	n.i.	not indicated		n.i.	Age. Most significant factor — the older the workers, the less chance of their reemployment. Skill. Less skilled were less successful than others. Sex. Women were less successful than men. Race. Negroes were less success

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Wilcock 1956	Mt. Vernon, Ill.	steel car mfg.	1,908	1,539	30	none	not indicated			not indicated			11.0[g] (N=1,162)	40.0 (N=1,162)	15.0[g] (N=1,162)	not indicated		n.i.	Education. Most important factor — the less educated were less successful than the better educated. Age. Workers over 45 years had less reemployment.
Sheppard, Ferman, and Faher 1957-58	Detroit, Mich.	automobile mfg.	4,500	sample I 185	15	none	64	21 (N = 132)	15	not indicated			27.0 (N=180)	n.i.	n.i.	5	86 (N=116)	n.i.	Age. Most important factor — the older workers were less successful than others. Skill. Skilled workers were more successful than semiskilled and unskilled workers.
				sample II 314	24		q	45 (N = 30)	q				n.i.			not indicated			
Fowler and Smith 1958	Buffalo, N. Y.	automobile mfg	1,100	256	6	none	q	18 (N = 72)	q	h	46.0 (N = 72)	h	n.i.	4.0 (N=78)	n.i.	3.0	54.0 (N=58)	24.0 (N=78)	Seniority. Workers with high seniority transferred to another plant. Age. Youth or old age were not significant factors in reemployment.
Ferman and Hudson 1959	Adrian, Mich.	aluminum mfg	617	487	15	none	not indicated			not indicated			n.i.	18.8 (N=260)	n.i.	6.0	84.0 (N=260)	54.0 (N=260)	Age. Older workers were reemployed less frequently than younger workers. Education. Less educated were reemployed less frequently than others. Mobility. Geographically mobile workers were more successful than others.
Wisc. State Employment Service 1960	La Crosse, Wisc.	auto parts mfg.	1,795	1,095	9	n.i.	not indicated			15.0	67.0 (N = 418)	14.0[g]	45.0 (N=418)	n.i.	n.i.	26	59 (N=397)	n.i.	Age. Younger workers were more successful than older workers. Sex. Men were more successful than women. Skill. Skilled workers were reemployed more often than less skilled workers.
Ferman 1960-61	Detroit, Mich.	newspapers	1,267	sample I (mail) 297	6	for editorial and commercial workers	not indicated			not indicated			40 (N=157)	n.i.	n.i.	2	79 (N=157)	58 (N=157)	Skill Level. More important than age or education.
				sample II (interview) 232						44	37 (N = 185)	19	80 (N=185)	1.7 (N=185)		2	52 (N=185)	88 (N=185)	
Wilcock and Franke 1960-61	East St. Louis, Ill.; Columbus, Ohio; Fargo, N. Dak.	meat packing and processing	2,411	sample I (mail) 1,920	12	for all workers	28.9	36.1 (N = 926)	35.0	not indicated			13 (N=926)	n.i.	n.i.	5	72 (N=928)	12	Age. Older workers were less successful than younger workers. Race. Negroes were less successful than whites. Education. Less educated were less successful than the educated. Sex. Women were less successful than men. Skill. Nontransferability of skills impeded reemployment.
				sample II (interview) 243			22.4	59.5 (N = 183)	18.1				n.i.		19 (N=160)	7	70 (N=182)	n.i.	
Wilcock and Franke 1960-61	Oklahoma City, Okla.	meat packing and processing	446	237 late layoffs (mail)	6	for all workers	not indicated			not indicated			n.i.	n.i.	14 (N=97)	4	73 (N=100)	54 (N=113)	Sex. Women were less successful than men. Race. Not a factor. Age. Workers over 45 years found new jobs less often. Education. Better educated were more successful than less educated.
				134 early layoffs (interview)						7	93 (N = 55)	—	14.0 (N=59)		14 (N=59)	not indicated		n.i.	

[a] There are 2 entries for the Clague, Couper, and Bakke study.

[b] Duration of study period is the period of time between the shutdown and the solicitation of data from the respondents.

[c] Based on *Dictionary of Occupational Titles*.

[d] This means referral by a company, union, or state or private employment agency.

[e] This means referral by friends or relatives, direct application to a company, or solicitation from prospective employers.

[f] The jobs consisted of 30 hours or more of work per week, regardless of their duration.

[g] Total percent does not equal 100 because some respondents did not give information.

[h] "Same" and "higher" designations were combined; thus figure was given only for the percentage of workers who were reemployed at a lower wage.

[i] Data were given for successful methods of obtaining 861 jobs.

[j] Study was limited to displaced hosiery workers who were either seeking work in the hosiery industry or who had been reemployed in that industry.

[k] Percentages were not available, but median income of displaced workers was approximately one half of their income in last 6 months of work.

[l] Self employment was included.

[m] At the time of interview. No data were reported for total self employment during the study period.

[n] 334 ex Harvester workers were interviewed at home 18 months after the shutdown. A mail questionnaire was sent to 145 of these workers 54 months after the shutdown.

[o] The investigator reported that 11 percent were reemployed in the same industry at the time of the interview. No data were reported for industrial classification of all jobs during the study period.

[p] Percent in same occupation at the time of the interview. No data were reported for occupational classifications during the entire study period.

[q] "Same" and "higher" designations were combined; thus figure was given only for the percentage of workers who were reemployed at a lower skill level.

*Haber, Fermon and Hudson, The Impact of Technological Change, Appendix.

Appendix G

Canonical Correlations

One attempt was made to go beyond simple tabular analysis through application of canonical correlation. This technique, a generalization of multiple regression analysis, examines "the character of the relationship between two sets of variables where each of the sets itself may be characterized by more than a single underlying dimension."[1] It was developed as a response to limitations inherent in the analysis of two separate sets of variables which produce a large number of discrete relationships without giving any insight into the overall relationships between the two sets. "The basic idea behind canonical correlation is to find the linear combination of variables in each set in such a way that the resultant correlation between the two composite indexes -- known as canonical variates -- is maximum."[2]

One or more sets of canonical variates are produced by the procedure. The first explains some or all of the linear relationship between the two sets. If all of the linear relationship has not been accounted for, additional canonical correlations are calculated to explain the residual relationship. As a consequence, each successive canonical correlation is smaller than the one preceding it. Another way of stating this is that "variables in one set are combined to predict maximally the variations of the variables in the other set. If the principle interest of the researcher is the optimal prediction of one set by another, the logical choice would be the first canonical variates."[1] The square of the canonical correlation -- R_c^2 is interpreted in much the same way as the squared multiple correlation coefficient representing the variance common to both sets of variables.[2] Kerlinger notes a general lack of familiarity with the technique which he ascribes to its computational complexity which severely limited use prior to widespread availability of computers.[3] Examples of its use are comparisons of variables reflecting early home environment with those involving general orientation to people or sets of attitudinal and physiological variables.[4]

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[1] Norman H. Nie and C. Hadlai Hull with the assistance of Jae-on Kim and Karen Steinbrenner, Statistical Package for the Social Sciences. Update manual (Chicago: National Opinion Research Center, University of Chicago, April 1972), p. A003-244-01.

[2] *Ibid.*, A-003-244-02.

Earlier, questions were raised about the application of regression techniques to nominal order variables. While a single nominal variable can be conceived as falling on a continuum between 0 and 1, the introduction of seven dichotomous items presents greater difficulty, since regression will not measure interaction between the seven resulting dummy variables. It was thought canonical correlations might get around this problem, since canonical correlations could treat these variables as a set. The seven dummy finding variables were treated as the dependent set. The group of variables that made up the independent set included age, race, education and social class based on respondent characteristics in 1969. Use of dummy variables is admittedly open to some question, and the reader must bear this in mind during the following discussion.

The canonical correlation procedure in SPSS generates a variety of tables. These include the canonical correlations for the variate sets with corresponding eigen values, wilk's lambda and chi-squares, a simple or zero order correlation matrix for the variables in each set and canonical coefficients for each cluster of dependent and independent variables. The latter can be interpreted as standardized regression weights and indicate the effect of each dependent variable on all independent variables taken as a set, and the effect of each independent variable on all dependent variables taken as a set. Subsequent discussion will focus primarily on the matrix and the canonical coefficients.

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[1] _Ibid._, A-003-244-03.

[2] Kerlinger and Pedhazer, 344.

[3] _Ibid._, 345.

[4] _Ibid._

The correlation coefficients for 1967 are shown in Table 112 and can be interpreted as a simple product moment r. It includes each one of the seven "dummy" finding variables -- which represent use and nonuse of a particular technique -- plus four demographic variables. The values are not particularly high, although Pearson's tend to be conservative when dummy variables are being used. Correlations appear between individual finding methods, between demographic variables and between finding and demographic items. Use of friends-relatives is highly correlated with direct application in all four years. Less substantial correlations occur between friends-relatives and newspapers, and between friends-relatives and schools particularly in 1966 and 1967. Certain of the demographic variables also appear to be correlated. These include social class and education especially in 1969, social class and age, social class and education, education and age, and race and education. More useful for this study are the coefficients between demographic characteristics and the dummy finding variables. Here the most pronounced values occur for use of friends-relatives with age and education, and school employment services and education. Both would have been predicted based on earlier analysis. Except in a few selected cases the coefficient values in the matrix were not of a particularly large magnitude. Canonical correlations between the sets of canonical variates in 1968 and 1969 are shown in Table 113 along with the basic canonical correlations for the variate sets. The coefficient listed under "CANVAR 1" are of primary interest to this study.

Table 112

Correlation Matrix 1967

	Sch.Emp. Service	Pub.Emp. Service	Pvt.Emp. Service	Friends-Relativ.	Direct Applic	News-paper	Other	Age	Race	Edu-cation	Social class
Schl. Emp. Svc.	1.00	-0.05[*]	-0.03	-0.24	-0.16	-0.05	-0.08	-0.06	0.03	0.10	0.03
Pub. Emp. Svc.		1.00	-0.02	-0.17	-0.11	-0.04	-0.05	-0.04	0.06	0.00	0.00
Pvt. Emp. Svc.			1.00	-0.11	0.07	-0.02	-0.03	-0.07	-0.03	-0.09	0.05
Friends-Relatives				1.00	-0.58	-0.20	-0.28	-0.11	0.00	-0.12	0.09
Direct Applicat.					1.00	-0.13	-0.19	0.02	0.00	-0.01	0.01
Newspaper						1.00	-0.06	0.08	-0.03	0.04	0.02
Other							1.00	0.08	-0.02	0.07	0.06
Age								1.00	-0.05	0.32	0.23
Race									1.00	-0.23	-0.13
Education										1.00	0.25
Social Class											1.00

[*] Minus signs have no meaning.

Table 113

Canonical Correlations 1968 and 1969

Number of Canonical Variate Sets	Corresponding Eigen Value	Corresponding Canonical Correlations	Wilk's Lambda	Chi-Square	Degrees of Freedom
		1968			
1	0.10429	0.32294	0.86413	454.7	28
2	0.02944	0.17172	0.96475	111.7	16
3	0.00578	0.07600	0.99406	18.5	10
4	0.00016	0.01279	0.99984	0.5	4
		1969			
1	0.10686	0.32630	0.86398	448.0	28
2	0.02422	0.15962	0.96734	101.7	18
3	0.00678	0.08203	0.99134	26.6	10
4	0.00189	0.04349	0.99811	5.7	4

The procedure also produces two matrices of canonical coefficients, one for the cluster of dependent variables; and the other for the cluster of independent variables. Coefficients for independent and dependent variables for 1968 and 1969 are presented for illustrative purposes in Tables 114 and 115. These values can be interpreted as regression weights and may assume a value greater than one. They indicate which dependent or independent variable has the largest impact, the second largest impact, etc. Among independent variables age shows the highest values in 1968 and 1969 and has a moderate value in 1967. In 1966 and 1969 education has the largest impact on the total set of job finding variables. This confirms the importance of age and education that has been noted earlier. Examination of coefficients for dependent variables -- how much influence all independent variables have on each dependent variable -- indicates remarkably similar patterns in all four Surveys. The set of independent variables appear to have the greatest influence on use or nonuse of friends and relatives, followed by direct application and schools. These represent the three most heavily used methods. While the entire procedure supports some of the insights gained earlier, the coefficients and correlations are not sufficiently large to generate any independent conclusions.

Table 114

Canonical Coefficients for Independent Variables 1968, 1969

	Canvar 1	Canvar 2	Canvar 3	Canvar 4
		1968		
Age	0.86918	0.34837	0.43460	-0.20078
Race	-0.24295	0.22796	0.85105	0.50324
Education	-0.07851	0.94875	0.32666	0.50803
Social Class	0.25213	0.25278	-0.44211	0.96707
		1969		
Age	0.85159	-0.46514	0.06144	-0.50375
Race	-0.25528	-0.12040	0.98166	-0.20836
Education	-0.11150	0.52754	0.02587	-0.21057
Social Class	0.24156	0.54890	0.48343	1.17286

Table 115

Canonical Coefficients for Dependent Variables 1968, 1969

	Canvar 1	Canvar 2	Canvar 3	Canvar 4
		1968		
Sch.Emp.Svc.	-0.46316	0.84556	-0.06610	0.07376
Pub.Emp.Svc.	-0.17052	-0.13955	0.84273	0.10477
Pvt.Emp.Svc.	-0.05021	0.22260	0.36227	-0.57742
Friends-Relat.	-0.98710	-0.19944	0.10585	-0.06910
Direct Appl.	-0.57714	-0.28113	0.31153	-0.15900
Newspaper	-0.17394	0.09560	-0.00144	-0.65084
Other	-0.30754	0.15524	0.13839	0.43038
		1969		
Sch.Emp.Svc.	-0.48221	0.83043	-0.00262	-0.17930
Pub.Emp.Svc.	-0.35285	-0.15261	0.77781	-0.37021
Pvt.Emp.Svc.	0.01386	0.37570	0.28661	0.38032
Friends-Relat.	-0.89888	-0.21472	-0.34985	-0.92184
Direct Appl.	-0.56072	-0.11419	0.26541	0.77236
Newspaper	-0.21118	0.09608	-0.17676	0.08867
Other	-0.13169	0.15680	-0.16056	0.30566

Appendix H

T-Tests on Rate of Pay and Job Finding

Table 116

T-Tests on Rate of Pay and Job Finding (Ungrouped) 1967, 1968, 1969

1967 Variable Pair - Job-Finding Techniques	All Respondents Rate of Pay	All Respondents 2-tailed Prob.*	Blacks Rate of Pay	Blacks 2-tailed Prob.	Whites Rate of Pay	Whites 2-tailed Prob.
School - Pub. Empl. Svc.	$1.49 vs. 1.94	.0001	$1.38 vs. 1.87	.001	$1.56 vs. 1.98	.0010
School - Pvt. Empl. Svc.	1.49 vs. 2.33	.0001	1.38 vs. 2.07	.060	1.56 vs. 2.47	.0001
School - Direct Applic.	1.49 vs. 1.98	.0001	1.38 vs. 1.80	.001	1.56 vs. 2.04	.0001
School - Newspapers	1.49 vs. 2.28	.0001	1.38 vs. 2.42	.0001	1.56 vs. 2.26	.0001
School - Friends-Relat.	1.49 vs. 2.01	.0001	1.38 vs. 1.70	.0001	1.56 vs. 2.14	.003
School - Other	1.49 vs. 2.21	.0001	1.38 vs. 1.90	.006	1.56 vs. 2.34	.0001
Pub.Emp.Svc.-Pvt.Emp.Svc.	1.94 vs. 2.23	.05	1.87 vs. 2.07	.62	1.98 vs. 2.47	.03
Pub.Emp.Svc.-Direct Appl.	1.94 vs. 1.98	.65	1.87 vs. 1.80	.66	1.98 vs. 2.04	.54
Pub.Emp.Svc.-Newspapers	1.94 vs. 2.28	.01	1.87 vs. 2.42	.02	1.98 vs. 2.26	.09
Pub.Emp.Svc.-Friends/Rel.	1.94 vs. 2.01	.64	1.87 vs. 1.70	.18	1.98 vs. 2.14	.43
Pub.Emp.Svc.-Other	1.94 vs. 2.21	.03	1.87 vs. 1.90	.89	1.98 vs. 2.34	.02
Pvt.Emp.Svc.-Direct Appl.	2.33 vs. 1.98	.07	2.07 vs. 1.80	.51	2.47 vs. 2.04	.04
Pvt.Emp.Svc.-Newspapers	2.33 vs. 2.28	.79	2.07 vs. 2.42	.43	2.47 vs. 2.26	.43
Pvt.Emp.Svc.-Friends/Rel.	2.33 vs. 2.01	.14	2.07 vs. 1.70	.37	2.47 vs 2.14	.21
Pvt.Emp.Svc.-Other	2.33 vs. 2.21	.56	2.07 vs. 1.90	.68	2.47 vs. 2.34	.63
Direct Appl.-Newspapers	1.98 vs. 2.28	.01	1.80 vs. 2.42	.01	2.04 vs. 2.26	.13
Direct Appl.-Friends/Rel.	1.98 vs. 2.01	.82	1.80 vs. 1.70	.36	2.04 vs. 2.14	.61
Direct Appl.-Others	1.98 vs. 2.21	.03	1.80 vs. 1.90	.62	2.04 vs. 2.34	.02
Newspapers-Friends/Rel.	2.28 vs. 2.01	.11	2.42 vs. 1.70	.003	2.26 vs. 2.14	.59
Newspapers-Others	2.28 vs. 2.21	.66	2.42 vs. 1.90	.05	2.26 vs. 2.34	.65
Friends/Rel.-Others	2.01 vs. 2.21	.20	1.70 vs. 1.90	.25	2.14 vs. 2.34	.35

*Generally separate variable estimate

Table 116 (cont.)

1968 Variable Pair - Job-Finding Techniques	All Respondents Rate of Pay	All Respondents 2-tailed Prob.	Blacks Rate of Pay	Blacks 2-tailed Prob.	Whites Rate of Pay	Whites 2-tailed Prob.
School - Pub. Empl. Svc.	$1.75 vs. 2.26	.0001	$1.65 vs. 2.12	.004	$1.81 vs. 2.37	.008
School - Pvt. Empl. Svc.	1.75 vs. 2.40	.0001	1.65 vs. 2.10	.007	1.81 vs. 2.58	.0001
School - Direct Applic.	1.75 vs. 2.13	.001	1.65 vs. 1.76	.38	1.81 vs. 2.26	.004
School - Newspapers	1.75 vs. 2.31	.001	1.65 vs. 2.07	.01	1.81 vs. 2.40	.001
School - Friends/Relat.	1.75 vs. 2.10	.001	1.65 vs. 2.01	.007	1.81 vs. 2.14	.01
School - Other	1.75 vs. 2.64	.001	1.65 vs. 2.09	.06	1.81 vs. 2.93	.0001
Pub.Emp.Svc.-Pvt.Emp.Svc.	2.26 vs. 2.40	.35	2.12 vs. 2.10	.88	2.37 vs. 2.58	.34
Pub.Emp.Svc.-Direct Appl.	2.26 vs. 2.13	.23	2.12 vs. 1.76	.008	2.37 vs. 2.26	.60
Pub.Emp.Svc.-Newspapers	2.26 vs. 2.31	.67	2.12 vs. 2.07	.77	2.37 vs. 2.40	.83
Pub.Emp.Svc.-Friends/Rel.	2.26 vs. 2.10	.10	2.12 vs. 2.01	.39	2.37 vs. 2.14	.23
Pub.Emp.Svc.-Other	2.26 vs. 2.64	.02	2.12 vs. 2.09	.89	2.37 vs. 2.93	.01
Pvt.Emp.Svc.-Direct Appl.	2.40 vs. 2.13	.03	2.10 vs. 1.76	.01	2.58 vs. 2.26	.06
Pvt.Emp.Svc.-Newspapers	2.40 vs. 2.31	.56	2.10 vs. 2.07	.87	2.58 vs. 2.40	.38
Pvt.Emp.Svc.-Friends/Rel.	2.40 vs. 2.10	.01	2.10 vs. 2.01	.50	2.58 vs. 2.14	.01
Pvt.Emp.Svc.-Other	2.40 vs. 2.64	.16	2.10 vs. 2.09	.97	2.58 vs. 2.93	.11
Direct Appl.-Newspapers	2.13 vs. 2.31	.07	1.76 vs. 2.07	.06	2.26 vs. 2.40	.25
Direct Appl.-Friends/Rel.	2.13 vs. 2.10	.53	1.76 vs. 2.01	.005	2.26 vs. 2.14	.10
Direct Appl.-Other	2.13 vs. 2.64	.001	1.76 vs. 2.09	.13	2.26 vs. 2.93	.0001
Newspapers-Friends/Rel.	2.31 vs. 2.10	.02	2.07 vs. 2.01	.67	2.40 vs. 2.14	.02
Newspapers-Others	2.31 vs. 2.64	.04	2.07 vs. 2.09	.93	2.40 vs. 2.93	.009
Friends/Rel.-Others	2.10 vs. 2.64	.001	2.01 vs. 2.09	.71	2.19 vs. 2.93	.0001

Table 116 (cont.)

1969 Variable Pair - Job-Finding Techniques	All Respondents		Blacks		Whites	
	Rate of Pay	2-tailed Prob.	Rate of Pay	2-tailed Prob.	Rate of Pay	2-tailed Prob.
School - Pub. Empl. Svc.	$2.03 vs. 2.41	.007	$1.97 vs. 2.23	.27	$2.05 vs. 2.63	.003
School - Pvt. Empl. Svc.	2.03 vs. 2.93	.001	1.97 vs. 2.18	.50	2.05 vs. 3.13	.001
School - Direct Applic.	2.03 vs. 2.49	.0001	1.97 vs. 2.36	.09	2.05 vs. 2.56	.0001
School - Newspapers	2.03 vs. 2.53	.001	1.97 vs. 2.02	.83	2.05 vs. 2.69	.0001
School - Friends/Relat.	2.03 vs. 2.47	.001	1.97 vs. 2.23	.25	2.05 vs. 2.59	.0001
School - Other	2.03 vs. 3.05	.0001	1.97 vs. 2.46	.08	2.05 vs. 3.23	.0001
Pub.Emp.Svc.-Pvt.Emp.Svc.	2.41 vs. 2.93	.04	2.23 vs. 2.18	.87	2.63 vs. 3.13	.09
Pub.Emp.Svc.-Direct Appl.	2.41 vs. 2.49	.51	2.23 vs. 2.36	.40	2.63 vs. 2.56	.71
Pub.Emp.Svc.-Newspapers	2.41 vs. 2.53	.42	2.23 vs. 2.02	.32	2.63 vs. 2.69	.79
Pub.Emp.Svc.-Friends/Rel.	2.41 vs. 2.47	.58	2.23 vs. 2.23	.96	2.63 vs. 2.59	.82
Pub.Emp.Svc.-Other	2.41 vs. 3.05	.0001	2.23 vs. 2.46	.29	2.63 vs. 3.23	.008
Pvt.Emp.Svc.-Direct Appl.	2.93 vs. 2.49	.07	2.18 vs. 2.36	.68	3.13 vs. 2.56	.02
Pvt.Emp.Svc.-Newspaper	2.93 vs. 2.53	.12	2.18 vs. 2.02	.58	3.13 vs. 2.69	.11
Pvt.Emp.Svc.-Friends/Rel.	2.93 vs. 2.47	.06	2.18 vs. 2.23	.90	3.13 vs. 2.59	.06
Pvt.Emp.Svc.-Other	2.93 vs. 3.05	.64	2.18 vs. 2.46	.57	3.13 vs. 3.23	.79
Direct Appl.-Newspapers	2.49 vs. 2.53	.72	2.36 vs. 2.02	.05	2.56 vs. 2.69	.39
Direct Appl.-Friends/Rel.	2.49 vs. 2.47	.84	2.36 vs. 2.23	.29	2.56 vs. 2.59	.71
Direct Appl.-Other	2.49 vs. 3.05	.0001	2.36 vs. 2.46	.58	2.56 vs. 3.23	.0001
Newspapers-Friends/Rel.	2.53 vs. 2.47	.62	2.02 vs. 2.23	.19	2.69 vs. 2.59	.51
Newspapers-Others	2.53 vs. 3.05	.002	2.02 vs. 2.46	.06	2.69 vs. 3.23	.007
Friends/Rel.-Others	2.47 vs. 3.05	.001	2.23 vs. 2.46	.21	2.59 vs. 3.23	.0001

Table 117

T-Tests on Rate of Pay and Job Finding (Grouped) 1967, 1968, 1969

Variable Pair - Job-Finding Techniques	All Respondents Rate of Pay	All Respondents 2-tailed Prob.	Blacks Rate of Pay	Blacks 2-tailed Prob.	Whites Rate of Pay	Whites 2-tailed Prob.
1967						
Formal-Other	$1.89 vs. 2.27	.003	$1.78 vs. 1.99	.33	$1.97 vs. 2.38	.30
Formal-Informal	1.89 vs. 2.00	.78	1.78 vs. 1.73	.61	1.97 vs. 2.10	.008
Informal-Other	2.00 vs. 2.27	.04	1.73 vs. 1.99	.23	2.10 vs. 2.38	.10
1968						
Formal-Other	2.08 vs. 2.87	.0001	1.91 vs. 2.30	.17	2.17 vs. 3.18	.0001
Formal-Informal	2.08 vs. 2.11	.61	1.91 vs. 1.92	.93	2.17 vs. 2.19	.77
Informal-Other	2.11 vs. 2.88	.0001	1.92 vs. 2.30	.17	2.17 vs. 3.18	.0001
1969						
Formal-Other	2.39 vs. 3.07	.001	2.11 vs. 2.47	.09	2.52 vs. 3.25	.0001
Formal-Informal	2.39 vs. 2.48	.18	2.11 vs. 2.28	.11	2.52 vs. 2.58	.51
Informal-Other	2.48 vs. 3.07	.0001	2.28 vs. 2.47	.34	2.58 vs. 3.25	.0001

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Appendix I

Program Used to Create SPSS System File

```
STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES SPSSH - VERSION 5.00            03/01/74        PAGE   1

                     RUN NAME          TESTING EXPANDED LIST DEM VARIABLES SAMPLEA
                     FILE NAME         MARCH1  ------  NO RING
                     INPUT MEDIUM      TAPE
                     # OF CASES        5225
                     VARIABLE LIST     VAR003,VAR004,VAR005,VAR007,VAR008,VAR012,VAR015,VAR016,
                                       VAR017,
                                       VAR020 TO VAR023,VAR025 TO VAR029,VAR033 TO VAR048,
                                       VAR050,VAR051,VAR055,VAR060 TO VAR065,
                                       VAR066,VAR067 TO VAR071,
                                       VAR073,VAR074 TO VAR076,VAR079,VAR081,VAR084,
                                       VAR087,VAR088,VAR089,VAR091,VAR092,VAR096,VAR099,
                                       VAR100,VAR101,VAR104 TO VAR107,VAR109 TO VAR113,VAR117,
                                       VAR118 TO VAR123,
                                       VAR124 TO VAR132,VAR134,VAR135,VAR137,VAR144 TO VAR149,
                                       VAR150 TO VAR155,VAR157 TO VAR160,VAR163,VAR167,VAR168,
                                       VAR171,VAR172,VAR173,VAR175,VAR176,VAR180,VAR183,VAR184,
                                       VAR185,VAR188 TO VAR191,VAR193 TO VAR197,VAR201,
                                       VAR202 TO VAR207,
                                       VAR208 TO VAR216,VAR218,VAR219,VAR221,VAR223 TO VAR233,
                                       VAR234,VAR235 TO VAR237,
                                       VAR241 TO VAR244,VAR247,VAR251,VAR252,VAR255 TO VAR257,
                                       VAR259,VAR260,VAR264,VAR267,VAR268,VAR269,
                                       VAR272 TO VAR275,
                                       VAR277 TO VAR281,VAR285 TO VAR300,VAR302,VAR303,
                                       VAR307,VAR312 TO VAR317,
                                       VAR318,VAR319 TO VAR323,
                                       VAR325 TO VAR328,VAR331,VAR335,VAR336
                     INPUT FORMAT      FIXED (4(5X,F1.0,F2.0,F1.0,2X,2F1.0,3X,F1.0,4X,
                                       F1.0,F2.0,F1.0,2X,F1.0,2F2.0,F3.0,1X,F2.0,
                                       2F2.0,F3.0,F1.0,5X,2F1.0,F2.0,2F1.0,
                                       F3.0,2F2.0,F3.0,4F2.0,2F2.0,F2.0,2X,
                                       F3.0,F2.0,4X,F2.0,4X,F3.0,3F2.0,2F2.0,2F2.0,
                                       2F1.0,2F2.0,1X,2F2.0,F1.0,A2,3X,
                                       F2.0,21X,F1.0,F2.0,2X))


                  ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

                   VARIABLE  FORMAT  RECORD    COLUMNS

                   VAR003     F 1. 0       1     6-   6
                   VAR004     F 2. 0       1     7-   8
                   VAR005     F 1. 0       1     9-   9
                   VAR007     F 1. 0       1    12-  12
                   VAR008     F 1. 0       1    13-  13
                   VAR012     F 1. 0       1    17-  17
                   VAR015     F 1. 0       1    22-  22
                   VAR016     F 2. 0       1    23-  24
```

```
TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                                 03/01/74        PAGE    2

                     ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

                     VARIABLE  FORMAT  RECORD     COLUMNS

                     VAR017    F 1. 0       1     25-  25
                     VAR020    F 1. 0       1     28-  28
                     VAR021    F 2. 0       1     29-  30
                     VAR022    F 2. 0       1     31-  32
                     VAR023    F 3. 0       1     33-  35
                     VAR025    F 2. 0       1     37-  38
                     VAR026    F 2. 0       1     39-  40
                     VAR027    F 2. 0       1     41-  42
                     VAR028    F 3. 0       1     43-  45
                     VAR029    F 1. 0       1     46-  46
                     VAR033    F 1. 0       1     52-  52
                     VAR034    F 1. 0       1     53-  53
                     VAR035    F 2. 0       1     54-  55
                     VAR036    F 1. 0       1     56-  56
                     VAR037    F 1. 0       1     57-  57
                     VAR038    F 3. 0       1     58-  60
                     VAR039    F 2. 0       1     61-  62
                     VAR040    F 2. 0       1     63-  64
                     VAR041    F 3. 0       1     65-  67
                     VAR042    F 2. 0       1     68-  69
                     VAR043    F 2. 0       1     70-  71
                     VAR044    F 2. 0       1     72-  73
                     VAR045    F 2. 0       1     74-  75
                     VAR046    F 2. 0       1     76-  77
                     VAR047    F 2. 0       1     78-  79
                     VAR048    F 2. 0       1     80-  81
                     VAR050    F 3. 0       1     84-  86
                     VAR051    F 2. 0       1     87-  88
                     VAR055    F 2. 0       1     93-  94
                     VAR060    F 3. 0       1     99- 101
                     VAR061    F 2. 0       1    102- 103
                     VAR062    F 2. 0       1    104- 105
                     VAR063    F 2. 0       1    106- 107
                     VAR064    F 2. 0       1    108- 109
                     VAR065    F 2. 0       1    110- 111
                     VAR066    F 2. 0       1    112- 113
                     VAR067    F 2. 0       1    114- 115
                     VAR068    F 1. 0       1    116- 116
                     VAR069    F 1. 0       1    117- 117
                     VAR070    F 2. 0       1    118- 119
                     VAR071    F 2. 0       1    120- 121
                     VAR073    F 2. 0       1    123- 124
```

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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                              03/01/74        PAGE    3

                 ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

                 VARIABLE  FORMAT  RECORD     COLUMNS

                 VAR074    F 2. 0       1    125- 126
                 VAR075    F 1. 0       1    127- 127
                 VAR076      A 2        1    128- 129
                 VAR079    F 2. 0       1    133- 134
                 VAR083    F 1. 0       1    156- 156
                 VAR084    F 2. 0       1    157- 158
                 VAR087    F 1. 0       1    166- 166
                 VAR088    F 2. 0       1    167- 168
                 VAR089    F 1. 0       1    169- 169
                 VAR091    F 1. 0       1    172- 172
                 VAR092    F 1. 0       1    173- 173
                 VAR096    F 1. 0       1    177- 177
                 VAR099    F 1. 0       1    182- 182
                 VAR100    F 2. 0       1    183- 184
                 VAR101    F 1. 0       1    185- 185
                 VAR104    F 1. 0       1    188- 188
                 VAR105    F 2. 0       1    189- 190
                 VAR106    F 2. 0       1    191- 192
                 VAR107    F 3. 0       1    193- 195
                 VAR109    F 2. 0       1    197- 198
                 VAR110    F 2. 0       1    199- 200
                 VAR111    F 2. 0       1    201- 202
                 VAR112    F 3. 0       1    203- 205
                 VAR113    F 1. 0       1    206- 206
                 VAR117    F 1. 0       1    212- 212
                 VAR118    F 1. 0       1    213- 213
                 VAR119    F 2. 0       1    214- 215
                 VAR120    F 1. 0       1    216- 216
                 VAR121    F 1. 0       1    217- 217
                 VAR122    F 3. 0       1    218- 220
                 VAR123    F 2. 0       1    221- 222
                 VAR124    F 2. 0       1    223- 224
                 VAR125    F 3. 0       1    225- 227
                 VAR126    F 2. 0       1    228- 229
                 VAR127    F 2. 0       1    230- 231
                 VAR128    F 2. 0       1    232- 233
                 VAR129    F 2. 0       1    234- 235
                 VAR130    F 2. 0       1    236- 237
                 VAR131    F 2. 0       1    238- 239
                 VAR132    F 2. 0       1    240- 241
                 VAR134    F 3. 0       1    244- 246
                 VAR135    F 2. 0       1    247- 248
```

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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                                    03/01/74        PAGE    4

        ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

        VARIABLE  FORMAT  RECORD    COLUMNS

        VAR139    F 2. 0       1    253- 254
        VAR144    F 3. 0       1    259- 261
        VAR145    F 2. 0       1    262- 263
        VAR146    F 2. 0       1    264- 265
        VAR147    F 2. 0       1    266- 267
        VAR148    F 2. 0       1    268- 269
        VAR149    F 2. 0       1    270- 271
        VAR150    F 2. 0       1    272- 273
        VAR151    F 2. 0       1    274- 275
        VAR152    F 1. 0       1    276- 276
        VAR153    F 1. 0       1    277- 277
        VAR154    F 2. 0       1    278- 279
        VAR155    F 2. 0       1    280- 281
        VAR157    F 2. 0       1    283- 284
        VAR158    F 2. 0       1    285- 286
        VAR159    F 1. 0       1    287- 287
        VAR160       A 2       1    288- 289
        VAR163    F 2. 0       1    293- 294
        VAR167    F 1. 0       1    316- 316
        VAR169    F 2. 0       1    317- 318
        VAR171    F 1. 0       1    326- 326
        VAR172    F 2. 0       1    327- 328
        VAR173    F 1. 0       1    329- 329
        VAR175    F 1. 0       1    332- 332
        VAR176    F 1. 0       1    333- 333
        VAR180    F 1. 0       1    337- 337
        VAR183    F 1. 0       1    342- 342
        VAR184    F 2. 0       1    343- 344
        VAR185    F 1. 0       1    345- 345
        VAR188    F 1. 0       1    348- 348
        VAR189    F 2. 0       1    349- 350
        VAR190    F 2. 0       1    351- 352
        VAR191    F 3. 0       1    353- 355
        VAR193    F 2. 0       1    357- 358
        VAR194    F 2. 0       1    359- 360
        VAR195    F 2. 0       1    361- 362
        VAR196    F 3. 0       1    363- 365
        VAR197    F 1. 0       1    366- 366
        VAR201    F 1. 0       1    372- 372
        VAR202    F 1. 0       1    373- 373
        VAR203    F 2. 0       1    374- 375
        VAR204    F 1. 0       1    376- 376
```

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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                          03/01/74        PAGE    5

              ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

              VARIABLE  FORMAT  RECORD    COLUMNS

              VAR205    F 1. 0        1   377- 377
              VAR206    F 3. 0        1   378- 380
              VAR207    F 2. 0        1   381- 382
              VAR208    F 2. 0        1   383- 384
              VAR209    F 3. 0        1   385- 387
              VAR210    F 2. 0        1   388- 389
              VAR211    F 2. 0        1   390- 391
              VAR212    F 2. 0        1   392- 393
              VAR213    F 2. 0        1   394- 395
              VAR214    F 2. 0        1   396- 397
              VAR215    F 2. 0        1   398- 399
              VAR216    F 2. 0        1   400- 401
              VAR218    F 3. 0        1   404- 406
              VAR219    F 2. 0        1   407- 408
              VAR223    F 2. 0        1   413- 414
              VAR228    F 3. 0        1   419- 421
              VAR229    F 2. 0        1   422- 423
              VAR230    F 2. 0        1   424- 425
              VAR231    F 2. 0        1   426- 427
              VAR232    F 2. 0        1   428- 429
              VAR233    F 2. 0        1   430- 431
              VAR234    F 2. 0        1   432- 433
              VAR235    F 2. 0        1   434- 435
              VAR236    F 1. 0        1   436- 436
              VAR237    F 1. 0        1   437- 437
              VAR238    F 2. 0        1   438- 439
              VAR239    F 2. 0        1   440- 441
              VAR241    F 2. 0        1   443- 444
              VAR242    F 2. 0        1   445- 446
              VAR243    F 1. 0        1   447- 447
              VAR244        A 2       1   448- 449
              VAR247    F 2. 0        1   453- 454
              VAR251    F 1. 0        1   476- 476
              VAR252    F 2. 0        1   477- 478
              VAR255    F 1. 0        1   486- 486
              VAR256    F 2. 0        1   487- 488
              VAR257    F 1. 0        1   489- 489
              VAR259    F 1. 0        1   492- 492
              VAR260    F 1. 0        1   493- 493
              VAR264    F 1. 0        1   497- 497
              VAR267    F 1. 0        1   502- 502
              VAR268    F 2. 0        1   503- 504
```

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TESTING EXPANDED LIST OEM VARIABLES SAMPLEA                              03/01/74        PAGE    6

                    ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

                    VARIABLE  FORMAT  RECORD    COLUMNS

                    VAR269     F 1. 0       1    505- 505
                    VAR272     F 1. 0       1    508- 508
                    VAR273     F 2. 0       1    509- 510
                    VAR274     F 2. 0       1    511- 512
                    VAR275     F 3. 0       1    513- 515
                    VAR277     F 2. 0       1    517- 518
                    VAR278     F 2. 0       1    519- 520
                    VAR279     F 2. 0       1    521- 522
                    VAR280     F 3. 0       1    523- 525
                    VAR281     F 1. 0       1    526- 526
                    VAR285     F 1. 0       1    532- 532
                    VAR286     F 1. 0       1    533- 533
                    VAR287     F 2. 0       1    534- 535
                    VAR288     F 1. 0       1    536- 536
                    VAR289     F 1. 0       1    537- 537
                    VAR290     F 3. 0       1    538- 540
                    VAR291     F 2. 0       1    541- 542
                    VAR292     F 2. 0       1    543- 544
                    VAR293     F 3. 0       1    545- 547
                    VAR294     F 2. 0       1    548- 549
                    VAR295     F 2. 0       1    550- 551
                    VAR296     F 2. 0       1    552- 553
                    VAR297     F 2. 0       1    554- 555
                    VAR298     F 2. 0       1    556- 557
                    VAR299     F 2. 0       1    558- 559
                    VAR300     F 2. 0       1    560- 561
                    VAR302     F 3. 0       1    564- 565
                    VAR303     F 2. 0       1    567- 568
                    VAR307     F 2. 0       1    573- 574
                    VAR312     F 3. 0       1    579- 581
                    VAR313     F 2. 0       1    582- 583
                    VAR314     F 2. 0       1    584- 585
                    VAR315     F 2. 0       1    586- 587
                    VAR316     F 2. 0       1    588- 589
                    VAR317     F 2. 0       1    590- 591
                    VAR318     F 2. 0       1    592- 593
                    VAR319     F 2. 0       1    594- 595
                    VAR320     F 1. 0       1    596- 596
                    VAR321     F 1. 0       1    597- 597
                    VAR322     F 2. 0       1    598- 599
                    VAR323     F 2. 0       1    600- 601
                    VAR325     F 2. 0       1    603- 604
```

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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                          03/01/74        PAGE    7

             ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

             VARIABLE  FORMAT  RECORD    COLUMNS

             VAR326     F 2. 0     1    605- 606
             VAR327     F 1. 0     1    607- 607
             VAR328       A 2      1    608- 609
             VAR331     F 2. 0     1    613- 614
             VAR335     F 1. 0     1    636- 636
             VAR336     F 2. 0     1    637- 639

 THE INPUT FORMAT PROVIDES FOR 224 VARIABLES.  224 WILL BE READ
 IT PROVIDES FOR  1 RECORDS ('CARDS') PER CASE.  A MAXIMUM OF  640 'COLUMNS' ARE USED ON A RECORD.

              VAR LABELS      VAR003,    MARITAL STATUS/
                              VAR004,  AGE/
                              VAR005,  RACE/
              VAR LABELS      VAR007   SMSA LOCATION/
                              VAR008   TRAING COURSE LAST YEAR/
                              VAR012   IQ SCORE IN QUINTILES/
                              VAR015   PER PUPIL EXPENDITURE SCHOOL/
                              VAR016   YR. LAST ENROLLED IN H.S/
                              VAR017   TYPE HIGH SCHOOL CURRICULUM/
                              VAR020,   EMPLOYMENT STATUS RECODE/
                              VAR021,   HOURS WORK IN CURRENT JOB/
                              VAR022,   METHOD USED TO LOOK FOR JOB/
                              VAR023   OCCUPATION LAST JOB 3-DIGIT/
                              VAR025,   HOW FIND CURRENT JOB/
                              VAR026   YEAR STARTED CURRENT JOB/
                              VAR027   MONTH STARTED CURRENT JOB/
                              VAR028   INDUSTRY OF CURRENT-LAST JOB/
                              VAR029,   SAME-DIFFERENT EMPLOYER/
                              VAR033,   JOB SATISFACTION/
                              VAR034  HOURS USUALLY WORKED 1965/
                              VAR035  # WEEKS LOOKING OR LAYOFF-1956/
                              VAR036  STETCHES UNEMPLOYED LAST YEAR-1966/
                              VAR037   NUMBER OF EMPLOYERS 12 MO. PRECEDING 1966/
                              VAR038   OCCUPATION OF JOB IN LAST YR. H.S 3-DIGIT/
                              VAR039   OCCUPATION OF JOB IN LAST YR. H.S 1-DIGIT/
                              VAR040,   HOW FOUND JOB IN LAST YR ATT H.S./
                              VAR041   INDUSTRY OF 1ST JOB AFTER H.S 3-DIGIT/
                              VAR042   INDUSTRY OF 1ST JOB AFTER H.S 1-DIGIT/
                              VAR043,   METHOD USED TO FIND JOB AFTER H.S./
                              VAR044,   YR STARTED 1ST JOB/
                              VAR045   MONTH STARTED 1ST JOB SINCE SCHOOL/
                              VAR046,   YR STOPPED FIRST JOB/
                              VAR047   REASON LEFT 1ST JOB SINCE SCHOOL/
                              VAR048  # WEEKS WORKED LST YEAR-19567
                              VAR050   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                              VAR051   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                              VAR055,   INCOME PAST 12 MO/
                              VAR060   FATHER OCCUPATION AT 14 3-DIGIT/
```

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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                                    03/01/74       PAGE    8

                                 VAR061,   FATHER DUNCAN/
                                 VAR062,   RESPONDENT EDUCATION/
                                 VAR063,   CURRENT OCCUPATION/
                                 VAR064   DUNCAN OF CURRENT OR LAST JOB/
                                 VAR065   INDUSTRY OF CURRENT-LAST JOB/
                                 VAR066  HOURLY RATE OF PAY 1966/
                                 VAR067   OCCUPATION WHEN STARTED 1ST JOB AFTER SCHOOL/
                                 VAR068   VOCATION OF JOB/
                                 VAR069   WHETHER 1ST JOB SINCE SCHOOL/
                                 VAR070   DUNCAN OF 1ST JOB SINCE SCHOOL/
                                 VAR071   KNOWLEDGE OF WORLD OF WORK/
                                 VAR073,   TOTAL FAMILY INCOME/
                                 VAR074   OCCUPATION OF FATHER 1-DIGIT/
                                 VAR075,   CULTURE EXPOSURE/
                                 VAR076   FAMILY RESPONSIBILITY INDEX/
                                 VAR079   ROTTER-INTERNAL EXTERNAL SCALE/
                                 VAR083   CAR OWNERSHIP/
                                 VAR084   LENGTH LIVING AT CURRENT ADDRESS/
                                 VAR087,   MARITAL STATUS/
                                 VAR088,   AGE/
                                 VAR089,   RACE/
                VAR LABELS       VAR091   SMSA LOCATION/
                                 VAR092   TRAING COURSE LAST YEAR/
                                 VAR096   IQ SCORE IN QUINTILES/
                                 VAR099   PER PUPIL EXPENDITURE SCHOOL/
                                 VAR100   YR. LAST ENROLLED IN H.S/
                                 VAR101   TYPE HIGH SCHOOL CURRICULUM/
                                 VAR104,   EMPLOYMENT STATUS RECODE/
                                 VAR105,   HOURS WORK IN CURRENT JOB/
                                 VAR106,   METHOD USED TO LOOK FOR JOB/
                                 VAR107   OCCUPATION LAST JOB 3-DIGIT/
                                 VAR109,   HOW FOUND CURRENT JOB/
                                 VAR110   YEAR STARTED CURRENT JOB/
                                 VAR111   MONTH STARTED CURRENT JOB/
                                 VAR112   INDUSTRY OF CURRENT-LAST JOB/
                                 VAR113,   SAME-DIFFERENT EMPLOYER/
                                 VAR117,   JOB SATISFACTION/
                                 VAR118  HOURS USUALLY WORKED 1967/
                                 VAR119  # WEEKS LOOKING OR LAYOFF-1957/
                                 VAR120  STETCHES UNEMPLOYED LAST YEAR-1957/
                                 VAR121   NUMBER OF EMPLOYERS 12 MO. PRECEDING 1966/
                                 VAR122   OCCUPATION OF JOB IN LAST YR. H.S 3-DIGIT/
                                 VAR123   OCCUPATION OF JOB IN LAST YR. H.S 1-DIGIT/
                                 VAR124,   HOW FOUND JOB IN LAST YR ATT H.S./
                                 VAR125   INDUSTRY OF 1ST JOB AFTER H.S 3-DIGIT/
                                 VAR126   INDUSTRY OF 1ST JOB AFTER H.S 1-DIGIT/
                                 VAR127,   METHOD USED TO FIND JOB AFTER H.S./
                                 VAR128,   YR STARTED 1ST JOB/
                                 VAR129   MONTH STARTED 1ST JOB SINCE SCHOOL/
                                 VAR130,   YR STOPPED FIRST JOB/
                                 VAR131   REASON LEFT 1ST JOB SINCE SCHOOL/
                                 VAR132  # OF WEEKS WORKED LAST YEAR-1967/
                                 VAR134   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                                 VAR135   INDUSTRY OF JOB IN LAST YR. SCHOOL/
```

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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                                                    03/01/74        PAGE    9

                                        VAR139,   INCOME PAST 12 MO/
                                        VAR144    FATHER OCCUPATION AT 14 3-DIGIT/
                                        VAR145,    FATHER DUNCAN/
                                        VAR146,    RESPONDENT EDUCATION/
                                        VAR147,    CURRENT OCCUPATION/
                                        VAR148    DUNCAN OF CURRENT OR LAST JOB/
                                        VAR149    INDUSTRY OF CURRENT-LAST JOB/
                                        VAR150    HOURLY ATE OF PAY 1967/
                                        VAR151    OCCUPATION WHEN STARTED 1ST JOB AFTER SCHOOL/
                                        VAR152    VOCATION OF JOB/
                                        VAR153    WHETHER 1ST JOB SINCE SCHOOL/
                                        VAR154    DUNCAN OF 1ST JOB SINCE SCHOOL/
                                        VAR155    KNOWLEDGE OF WORLD OF WORK/
                                        VAR157,    TOTAL FAMILY INCOME/
                                        VAR158    OCCUPATION OF FATHER 1-DIGIT/
                                        VAR159,    CULTURE EXPOSURE/
                                        VAR160    FAMILY RESPONSIBILITY INDEX/
                                        VAR163    ROTTER-INTERNAL EXTERNAL SCALE/
                                        VAR167    CAR OWNERSHIP/
                                        VAR168    LENGTH LIVING AT CURRENT ADDRESS/
                                        VAR171,    MARITAL STAUS/
                                        VAR172,    AGE/
                                        VAR173,    RACE/
                           VAR LABELS   VAR175    SMSA LOCATION/
                                        VAR176    TRAING COURSE LAST YEAR/
                                        VAR180    IQ SCORE IN QUINTILES/
                                        VAR183    PER PUPIL EXPENDITURE SCHOOL/
                                        VAR184    YR. LAST ENROLLED IN H.S/
                                        VAR185    TYPE HIGH SCHOOL CURRICULUM/
                                        VAR188,    EMPLOYMENT STATUS RECODE/
                                        VAR189,    HOURS WORK IN CURRENT JOB/
                                        VAR190,    METHOD USED TO LOOK FOR JOB/
                                        VAR191    OCCUPATION LAST JOB 3-DIGIT/
                                        VAR193,    HOW FOUND CURRENT JOB/
                                        VAR194    YEAR STARTED CURRENT JOB/
                                        VAR195    MONTH STARTED CURRENT JOB/
                                        VAR196    INDUSTRY OF CURRENT-LAST JOB/
                                        VAR197,    SAME-DIFFERENT EMPLOYER/
                                        VAR201,    JOB SATISFACTION/
                                        VAR202   HOURS USUALLY WORKED 1968/
                                        VAR203   # WEEKS LOOKING OR LAYOFF-1968/
                                        VAR204   STRETCHES UNEMPLOYED LAST YEAR-1968/
                                        VAR205    NUMBER OF EMPLOYERS 12 MO. PRECEDING 1966/
                                        VAR206    OCCUPATION OF JOB IN LAST YR. H.S 3-DIGIT/
                                        VAR207    OCCUPATION OF JOB IN LAST YR. H.S 1-DIGIT/
                                        VAR208,    HOW FOUND JOB IN LAST YR ATT H.S./
                                        VAR209    INDUSTRY OF 1ST JOB AFTER H.S 3-DIGIT/
                                        VAR210    INDUSTRY OF 1ST JOB AFTER H.S 1-DIGIT/
                                        VAR211,    METHOD USED TO FIND JOB AFTER H.S./
                                        VAR212,    YR STARTED 1ST JOB/
                                        VAR213    MONTH STARTED 1ST JOB SINCE SCHOOL/
                                        VAR214,    YR STOPPED 1ST JOB/
                                        VAR215    REASON LEFT 1ST JOB SINCE SCHOOL/
                                        VAR216   # OF WEEKS WORKED LAST YEAR-1968/
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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                              03/01/74        PAGE  10

                             VAR218   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                             VAR219   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                             VAR223,   INCOME PAST 12 MO/
                             VAR228   FATHER OCCUPATION AT 14 3-DIGIT/
                             VAR229,   FATHER DUNCAN/
                             VAR230,   RESPONDENT EDUCATION/
                             VAR231,   CURRENT OCCUPATION/
                             VAR232   DUNCAN OF CURRENT OR LAST JOB/
                             VAR233   INDUSTRY OF CURRENT-LAST JOB/
                             VAR234   HOURLY ARTE OF PAY 1968/
                             VAR235   OCCUPATION WHEN STARTED 1ST JOB AFTER SCHOOL/
                             VAR236   VOCATION OF JOB/
                             VAR237   WHETHER 1ST JOB SINCE SCHOOL/
                             VAR238   DUNCAN OF 1ST JOB SINCE SCHOOL/
                             VAR239   KNOWLEDGE OF WORLD OF WORK/
                             VAR241,   TOTAL INCOME OF FAMILY/
                             VAR242   OCCUPATION OF FATHER 1-DIGIT/
                             VAR243,   CULTURE EXPOSURE/
                             VAR244   FAMILY RESPONSIBILITY INDEX/
                             VAR247   ROTTER-INTERNAL EXTERNAL SCALE/
                             VAR251   CAR OWNERSHIP/
                             VAR252   LENGTH LIVING AT CURRENT ADDRESS/
                             VAR255,   MARITAL STATUS/
                             VAR256,   AGE/
                             VAR257,   RACE/
              VAR LABELS     VAR259   SMSA LOCATION/
                             VAR260   TRAING COURSE LAST YEAR/
                             VAR264   IQ SCORE IN QUINTILES/
                             VAR267   PER PUPIL EXPENDITURE SCHOOL/
                             VAR268   YR. LAST ENROLLED IN H.S/
                             VAR269   TYPE HIGH SCHOOL CURRICULUM/
                             VAR272,   EMPLOYMENT STATUS RECODE/
                             VAR273,   HOURS WORK IN CURRENT JOB/
                             VAR274,   METHOD USED TO LOOK FOR JOB/
                             VAR275   OCCUPATION LAST JOB 3-DIGIT/
                             VAR277,   HOW FOUND CURRENT JOB/
                             VAR278   YEAR STARTED CURRENT JOB/
                             VAR279   MONTH STARTED CURRENT JOB/
                             VAR280   INDUSTRY OF CURRENT-LAST JOB/
                             VAR281,   SAME-DIFFERENT EMPLOYER/
                             VAR285,   JOB SATISFACTION/
                             VAR286  HOURS USUALLY WORKED 1967/
                             VAR287  # WEEKS LOOKING OR LAYOFF-1969/
                             VAR288  STETCHES UNEMPLOYED LAST YEAR-1969/
                             VAR289   NUMBER OF EMPLOYERS 12 MO. PRECEDING 1966/
                             VAR290   OCCUPATION OF JOB IN LAST YR. H.S 3-DIGIT/
                             VAR291   OCCUPATION OF JOB IN LAST YR. H.S 1-DIGIT/
                             VAR292,   HOW FOUND JOB IN LAST YR ATT H.S./
                             VAR293   INDUSTRY OF 1ST JOB AFTER H.S 3-DIGIT/
                             VAR294   INDUSTRY OF 1ST JOB AFTER H.S 1-DIGIT7
                             VAR295,   METHOD USED TO FIND JOB AFTER H.S./
                             VAR296,   YR STARTED 1ST JOB/
                             VAR297   MONTH STARTED 1ST JOB SINCE SCHOOL/
                             VAR298,   YR STOPPED 1ST JOB/
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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                                   03/01/74        PAGE   11

                   VAR299   REASON LEFT 1ST JOB SINCE SCHOOL/
                   VAR300  # OF WEEKS WORKED LAST YEAR-1969/
                   VAR302   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                   VAR303   INDUSTRY OF JOB IN LAST YR. SCHOOL/
                   VAR307,   INCOME PAST 12 MO/
                   VAR312   FATHER OCCUPATION AT 14 3-DIGIT/
                   VAR313,   FATHER DUNCAN/
                   VAR314,   RESPONDENT EDUCATION/
                   VAR315,   CURRENT OCCUPATION/
                   VAR316   DUNCAN OF CURRENT OR LAST JOB/
                   VAR317   INDUSTRY OF CURRENT-LAST JOB/
                   VAR318  HOURLY RATE OF PAY 1969/
                   VAR319   OCCUPATION WHEN STARTED 1ST JOB AFTER SCHOOL/
                   VAR320   VOCATION OF JOB/
                   VAR321   WHETHER 1ST JOB SINCE SCHOOL/
                   VAR322   DUNCAN OF 1ST JOB SINCE SCHOOL/
                   VAR323   KNOWLEDGE OF WORLD OF WORK/
                   VAR325,   TOTAL FAMILY INCOME/
                   VAR326   OCCUPATION OF FATHER 1-DIGIT/
                   VAR327,   CULTURE EXPOSURE/
                   VAR328   FAMILY RESPONSIBILITY INDEX/
                   VAR331   ROTTER-INTERNAL EXTERNAL SCALE/
                   VAR335   CAR OWNERSHIP/
                   VAR335   LENGTH LIVING AT CURRENT ADDRESS/
       IF          (VAR230 EQ 99) VAR188=0
       RECODE      VAR043,VAR025,VAR109,VAR193,VAR277,VAR040(3 THRU 16=7)
       RECODE      VAR004,VAR088,VAR172,VAR256 (14 THRU 17=1)
                   (18 THRU 21=2)(21 THRU HIGHEST=3)
       RECODE      VAR055,VAR139,VAR223,VAR307 (1,2=1)(3,4=2)(5 THRU 11=3)
       RECODE      VAR061 (4 THRU 18=1) (20 THRU 32=1) (33 THRU 61=2)
                   (62 THRU 96=3)(19,99=0)
       RECODE      VAR062,VAR146,VAR230,VAR314 (0 THRU 8=1) (9=2) (10=3)
                   (11=4)(12=5)(13 THRU 15=6)(16 THRU 25=16)
       RECODE      VAR066,VAR150,VAR234,VAR318(1,2,3=1)(4,5=2)(6,7,8,9,10=3)
       RECODE      VAR073,VAR157,VAR241,VAR325(1 THRU 5=1)(6 THRU 8=2)
                   (9 THRU 11=3)
       RECODE      VAR071,VAR155,VAR239,VAR323(0 THRU 28=1)(29 THRU 37=2)
                   (38 THRU 56=3)
       RECODE      VAR075 (4=3)
       RECODE      VAR064 (1,2,3=1)(4 THRU 9=2)(10 THRU HIGHEST=3)
       RECODE      VAR247 (1 THRU 20=1)(21 THRU 26=2)(27 THRU HIGHEST=3)
       RECODE      VAR092(2,3,4=1)(5,6,7=2)(1=4)
       VALUE LABELS VAR040,VAR043,VAR025,VAR109,VAR193,VAR277
                   (1) SCHOOL (2) PUB EMPLY SVC (3) PVT EMPLY SVC (4)EMPLOY
                   (5) NEWSPAPER (6) FRNDSCREL (7) OTHER
       MISSING VALUES VAR003,VAR087,VAR171,VAR255 (0)
       MISSING VALUES VAR004,VAR088,VAR172,VAR256 (0)
       MISSING VALUES VAR005,VAR089,VAR173,VAR257,VAR061 (0)
       MISSING VALUES VAR007,VAR091,VAR175,VAR259(0)
       MISSING VALUES VAR008,VAR092,VAR176,VAR260 (0)
       MISSING VALUES VAR017,VAR264,VAR267 (0)
       MISSING VALUES VAR034,VAR118,VAR202,VAR286 (0)
       MISSING VALUES VAR035,VAR119,VAR203,VAR287 (0)
       MISSING VALUES VAR036,VAR120,VAR204,VAR288 (0)
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TESTING EXPANDED LIST DEM VARIABLES SAMPLEA                                    03/01/74     PAGE   12

                         MISSING VALUES VAR048,VAR132,VAR216,VAR300 (0)
                         MISSING VALUES VAR062,VAR146,VAR230,VAR314 (99)
                         MISSING VALUES VAR040,VAR043,VAR025,VAR109,VAR277,VAR193 (0)
                         MISSING VALUES VAR066,VAR150,VAR234,VAR318 (0)
                         MISSING VALUES VAR071,VAR155,VAR239,VAR323 (0)
                         MISSING VALUES VAR073,VAR157,VAR241,VAR325 (0)
                         MISSING VALUES VAR075 (0)
                         MISSING VALUES VAR076,VAR160,VAR244 (0)
                         MISSING VALUES VAR054,VAR247 (0)
                         CODEBOOK       VAR034,VAR118,VAR202,VAR286
                         STATISTICS     ALL
                         READ INPUT DATA
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Appendix J

Program Used to Create Second Longitudinal Job-Finding Variable

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STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES SPSSH - VERSION 5.00          04/13/74        PAGE    1
             GET FILE        MARCHI


                       FILE MARCHI    HAS 227 VARIABLES

                       THE SUBFILES ARE..

                                  NO OF
                       NAME       CASES

                       MARCHI     5225

             NUMBERED        YES
             SELECT IF       ((VAR062 LE 15 AND VAR146 LE 15 AND VAR230 LE 15 AND
                             VAR314 LE 15) AND ((VAR020 EQ 1 AND VAR104 EQ 1 AND
                             VAR188 EQ 1 AND VAR272 EQ 1) OR (VAR020 EQ 1 AND
                             VAR104 EQ 1 AND VAR188 EQ 1) OR (VAR020 EQ 1 AND
                             VAR188 EQ 1 AND VAR272 EQ 1) OR (VAR020 EQ 1 AND
                             VAR104 EQ 1 AND VAR272 EQ 1) OR (VAR104 EQ 1 AND
                             VAR188 EQ 1 AND VAR272 EQ 1)))
             RECODE          VAR062,VAR146,VAR230,VAR314 (1,2,3=4)/
             RECODE          VAR043,VAR025,VAR109,VAR193,VAR277,VAR040
                             (1,2,3,5,9,11=1 )(4,6,8,10,16=4 )(12,13,15,14,7=7 )
             IF              (VAR043 NE 0) ESR0=3                                    1ST
             IF              (VAR043 EQ 0) ESR0=4                                    1ST
             IF              (ESR0 EQ 3 AND (VAR020 EQ 1 OR VAR020 EQ 2)) ESR1=2     66
             IF              (ESR0 EQ 4 AND (VAR020 EQ 1 OR VAR020 EQ 2)) ESR1=3     66
             IF              (ESR0 EQ 4 AND
                             (VAR020 EQ 3 OR VAR020 EQ 4 OR VAR020 EQ 6 OR VAR020 EQ 7
                             OR VAR020 EQ 8)) ESR1=4                                 66
             IF              (ESR0 EQ 3 AND (VAR020 EQ 3 OR VAR020 EQ 4 OR VAR020
                             EQ 6 OR VAR020 EQ 7 OR VAR020 EQ 8)) ESR1=4             66
             IF              ((ESR1 EQ 1 OR ESR1 EQ 2 OR ESR1 EQ 3) AND (VAR104
                             EQ 1 OR VAR104 EQ 2) AND (VAR113 EQ 1 OR VAR113 EQ 2))
                             ESR2=1                                                  67
             IF              ((ESR1 EQ 1 OR ESR1 EQ 2 OR ESR1 EQ 3) AND (VAR104
                             EQ 1 OR VAR104 EQ 2) AND (VAR113 EQ 3)) ESR2=2          67
             IF              (ESR1 EQ 4 AND      (VAR104 EQ 1 OR VAR104 EQ 2)) ESR2=3 67
             IF              ((ESR1 EQ 2 OR ESR1 EQ 3 ) AND ( VAR104 NE 1
                             AND VAR104 NE 2)) ESR2=4                                67
             IF              (ESR1 EQ 4 AND (VAR104 EQ 1 OR VAR104 EQ 2)) ESR2=3     67
             IF              ((ESR1 EQ 4 OR ESR1 EQ 5) AND (VAR104 NE 1 AND VAR104 NE
                             2)) ESR2=4                                              67
             IF              ((ESR2 EQ 1 OR ESR2 EQ 2 OR ESR2 EQ 3) AND (VAR188 NE 1
                             AND VAR188 NE 2)) ESR3=4                                68
             IF              ((ESR2 EQ 1 OR ESR2 EQ 2 OR ESR2 EQ 3) AND (VAR188 EQ 1
                             OR VAR188 EQ 2) AND (VAR197 EQ 1 OR VAR197 EQ 2)) ESR3=1 68
             IF              ((ESR2 EQ 1 OR ESR2 EQ 2 OR ESR2 EQ 3) AND (VAR188 EQ 1
                             OR VAR188 EQ 2) AND (VAR197 EQ 3)) ESR3=2               68
             IF              ((ESR2 EQ 4) AND (VAR188 EQ 1 OR VAR188 EQ 2)) ESR3=3   68
             IF              ((ESR2 EQ 4 OR ESR2 EQ 5) AND (VAR188 NE 1 AND VAR188 NE
                             2)) ESR3=4                                              68
             IF              ((ESR3 EQ 1 OR ESR3 EQ 2 OR ESR3 EQ 3) AND (VAR272 NE 1
                 AND VAR272 NE 2)) ESR4=4                                69
      IF         ((ESR3 EQ 1 OR ESR3 EQ 2 OR ESR3 EQ 3) AND (VAR272 EQ 1
                 OR VAR272 EQ 2) AND (VAR281 EQ 1 OR VAR281 EQ 2)) ESR4=1 69
      IF         ((ESR3 EQ 1 OR ESR3 EQ 2 OR ESR3 EQ 3) AND (VAR272 EQ 1
                 OR VAR272 EQ 2) AND (VAR281 EQ 3)) ESR4=2               69
      IF         ((ESR3 EQ 4) AND (VAR272 EQ 1 OR VAR272 EQ 2)) ESR4=3   69
      IF         ((ESR3 EQ 4 OR ESR3 EQ 5) AND (VAR272 NE 1 AND VAR272
                 NE 2)) ESR4=5                                           69
      IF         ((ESR3 EQ 5) AND (VAR272 EQ 1 OR VAR272 EQ 2)) ESR4=5   69
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 2   1ST66&67
                 OR ESR2 EQ 3)) SEARCHA1=VAR043
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 2   1ST66&67
                 OR ESR2 EQ 3)) SEARCHA2=VAR025
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 2   1ST66&67
                 OR ESR2 EQ 3)) SEARCHA3=VAR109
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 1   1ST66&68
                 OR ESR2 EQ 4) AND(ESR3 EQ 2 OR ESR3 EQ 3))SEARCHB1=VAR043
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 1   1ST66&68
                 OR ESR2 EQ 4) AND(ESR3 EQ 2 OR ESR3 EQ 3))SEARCHB2=VAR025
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 1   1ST66&68
                 OR ESR2 EQ 4) AND(ESR3 EQ 2 OR ESR3 EQ 3))SEARCHB3=VAR193
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 1   1ST66&69
                 OR ESR2 EQ 4) AND (ESR3 EQ 1 OR ESR3 EQ 4 OR ESR3 EQ 5)
                 AND (ESR4 EQ 2 OR ESR4 EQ 3)) SEARCHC1=VAR043
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 1   1ST66&69
                 OR ESR2 EQ 4) AND (ESR3 EQ 1 OR ESR3 EQ 4 OR ESR3 EQ 5)
                 AND (ESR4 EQ 2 OR ESR4 EQ 3)) SEARCHC2=VAR025
      IF         (ESRO EQ 3 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND (ESR2 EQ 1   1ST66&69
                 OR ESR2 EQ 4) AND (ESR3 EQ 1 OR ESR3 EQ 4 OR ESR3 EQ 5)
                 AND (ESR4 EQ 2 OR ESR4 EQ 3)) SEARCHC3=VAR277
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND(ESR2 EQ 2 OR 1ST67&68
                 ESR2 EQ 3) AND (ESR3 EQ 2 OR ESR3 EQ 3)) SEARCHD1=VAR043
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND(ESR2 EQ 2 OR 1ST67&68
                 ESR2 EQ 3) AND (ESR3 EQ 2 OR ESR3 EQ 3))SEARCHD2=VAR109
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND(ESR2 EQ 2 OR 1ST67&68
                 ESR2 EQ 3) AND (ESR3 EQ 2 OR ESR3 EQ 3)) SEARCHD3=VAR193
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4)AND (ESR2 EQ 2 OR 1ST67&69
                 ESR2 EQ 3) AND (ESR3 EQ 1 OR ESR3 EQ 4) AND (ESR4 EQ 2 OR
                 ESR4 EQ 3)) SEARCHE1=VAR043
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4)AND (ESR2 EQ 2 OR 1ST67&69
                 ESR2 EQ 3) AND (ESR3 EQ 1 OR ESR3 EQ 4) AND (ESR4 EQ 2 OR
                 ESR4 EQ 3)) SEARCHE2=VAR109
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4)AND (ESR2 EQ 2 OR 1ST67&69
                 ESR2 EQ 3) AND (ESR3 EQ 1 OR ESR3 EQ 4) AND (ESR4 EQ 2 OR
                 ESR4 EQ 3)) SEARCHE3=VAR277
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND (ESR2 EQ 1   1ST68&69
                 OR ESR2 EQ 4 OR ESR2 EQ 5) AND (ESR3 EQ 2 OR ESR3 EQ 3)
                 AND (ESR4 EQ 2 OR ESR4 EQ 3)) SEARCHF1=VAR043
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND (ESR2 EQ 1   1ST68&69
                 OR ESR2 EQ 4 OR ESR2 EQ 5) AND (ESR3 EQ 2 OR ESR3 EQ 3)
                 AND (ESR4 EQ 2 OR ESR4 EQ 3)) SEARCHF2=VAR193
      IF         (ESRO EQ 3 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND (ESR2 EQ 1   1ST68&69
                 OR ESR2 EQ 4 OR ESR2 EQ 5) AND (ESR3 EQ 2 OR ESR3 EQ 3)
                 AND (ESR4 EQ 2 CR ESR4 EQ 3)) SEARCHF3=VAR277
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                IF              (ESR0 EQ 4 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND(ESR2 EQ 2 OR 66667668
                                ESR2 EQ 3) AND (ESR3 EQ 2 OR ESR3 EQ 3))SEARCHH1=VAR025
                IF              (ESR0 EQ 4 AND (ESR1 EQ 2 OR ESR1 EQ 3) AND(ESR2 EQ 2 OR 66667668
                                ESR2 EQ 3) AND (ESR3 FQ 2 OR ESR3 FQ 3)) SEARCHH2=VAR109
                IF              (ESR0 EQ 4 AND (ESR1 FQ 2 OR ESR1 EQ 3) AND(ESR2 EQ 2 OR 66667668
                                ESR2 EQ 3) AND (ESR3 EQ 2 OR ESR3 EQ 3)) SEARCHH3=VAR193
                IF              (ESR0 EQ 4 AND (ESR1 EQ 2 OR ESR1 FQ 3) AND(ESR2 FQ 2 OR 66667669
                                ESR2 EQ 3) AND (ESR3 EQ 1 OR ESR3 EQ 4) AND
                                (ESR4 EQ 2 OR ESR4 EQ 3))SEARCHI1=VAR025
                IF              (ESR0 EQ 4 AND (ESR1 EQ 2 OR FSR1 EQ 3) AND(ESR2 EQ 2 OR 66667669
                                ESR2 EQ 3) AND (ESR3 EQ 1 OR ESR3 EQ 4) AND
                                (ESR4 EQ 2 OR ESR4 EQ 3))SEARCHI2=VAR109
                IF              (ESR0 EQ 4 AND (ESR1 FQ 2 OR ESR1 EQ 3) AND(ESR2 EQ 2 OR 66667669
                                ESR2 EQ 3) AND (ESR3 EQ 1 OR ESR3 EQ 4) AND
                                (ESR4 EQ 2 OR ESR4 EQ 3))SEARCHI3=VAR277
                IF              (ESR0 EQ 4 AND (ESR1 EQ 1 OR FSR1 EQ 4) AND(ESR2 EQ 1 OR 66668669
                                ESR2 EQ 4) AND (ESR3 EQ 2 OR ESR3 EQ 3) AND (ESR4 EQ 2 OR
                                ESR4 EQ 3))   SEARCHJ1=VAR025
                IF              (ESR0 EQ 4 AND (ESR1 EQ 1 OR ESR1 EQ 4) AND(ESR2 EQ 1 OR 66668669
                                ESR2 EQ 4) AND (ESR3 EQ 2 OR ESR3 EQ 3) AND (ESR4 FQ 2 OR
                                ESR4 EQ 3))   SEARCHJ2=VAR193
                IF              (ESR0 EQ 4 AND (ESR1 EQ 1 OR FSR1 EQ 4) AND(ESR2 EQ 1 OR 66668669
                                ESR2 EQ 4) AND (ESR3 EQ 2 OR ESR3 EQ 3) AND (ESR4 EQ 2 OR
                                ESR4 EQ 3))   SEARCHJ3=VAR277
                IF              (ESR0 EQ 4 AND ESR1 EQ 4 AND (ESR2 EQ 2 OR ESR2 EQ 3)AND 67668669
                                (ESR3 EQ 2 OR ESR3 EQ 3) AND (ESR4 EQ 2 OR ESR4 EQ 4))
                                SEARCHK1=VAR109
                IF              (ESR0 EQ 4 AND ESR1 EQ 4 AND (ESR2 EQ 2 OR ESR2 EQ 3)AND 67668669
                                (ESR3 EQ 2 OR ESR3 EQ 3) AND (ESR4 EQ 2 OR ESR4 EQ 4))
                                SEARCHK2=VAR193
                IF              (ESR0 FQ 4 AND ESR1 EQ 4 AND (ESR2 EQ 2 OR ESR2 FQ 3)AND 67668669
                                (ESR3 EQ 2 OR ESR3 EQ 3) AND (ESR4 EQ 2 OR ESR4 EQ 4))
                                SEARCHK3=VAR277
                COMPUTE         SEARCHAA=SEARCHA1 + SEARCHB1 + SEARCHC1 + SEARCHD1 +
                                SEARCHE1 + SEARCHF1 + SEARCHH1 + SEARCHI1 + SEARCHJ1
                                + SEARCHK1
                COMPUTE         SEARCHBB=SEARCHA2 + SEARCHB2 + SEARCHC2 + SEARCHD2 +
                                SEARCHE2 + SEARCHF2 + SEARCHH2 + SEARCHI2 + SEARCHJ2
                                + SEARCHK2
                COMPUTE         SEARCHCC=SEARCHA3 + SEARCHB3 + SEARCHC3 + SEARCHD3 +
                                SEARCHE3 + SEARCHF3 + SEARCHH3 + SEARCHI3 + SEARCHJ3
                                + SEARCHK3
                MISSING VALUES  SEARCHAA,SEARCHBB,SEARCHCC,SEARCHA1,SEARCHA2,SEARCHA3,
                                SEARCHB1,SEARCHB2,SEARCHB3,SEARCHC1,SEARCHC2,SEARCHC3,
                                SEARCHD1,SEARCHD2,SEARCHD3,SEARCHE1,SEARCHE2,SEARCHE3,
                                SEARCHF1,SEARCHF2,SEARCHF3,SEARCHH1,SEARCHH2,SEARCHH3,
                                SEARCHI1,SEARCHI2,SEARCHI3,SEARCHJ1,SEARCHJ2,SEARCHJ3,
                                SEARCHK1,SEARCHK2,SEARCHK3 (0)
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 1 AND SEARCHCC EQ 1)
                                SEARCHX=1
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 1 AND SEARCHCC EQ 7)
                                SEARCHX=1
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 1 AND SEARCHCC EQ 4)
                                SEARCHX=3
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                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 4 AND SEARCHCC EQ 1)
                                SEARCHX=5
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 4 AND SEARCHCC EQ 4)
                                SEARCHX=3
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 4 AND SEARCHCC EQ 7)
                                SEARCHX=5
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 7 AND SEARCHCC EQ 1)
                                SEARCHX=1
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 7 AND SEARCHCC EQ 4)
                                SEARCHX=5
                IF              (SEARCHAA EQ 1 AND SEARCHBB EQ 7 AND SEARCHCC EQ 7)
                                SEARCHX=6
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 1 AND SEARCHCC EQ 1)
                                SEARCHX=4
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 1 AND SEARCHCC EQ 4)
                                SEARCHX=5
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 1 AND SEARCHCC EQ 7)
                                SEARCHX=5
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 4 AND SEARCHCC EQ 1)
                                SEARCHX=4
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 4 AND SEARCHCC EQ 4)
                                SEARCHX=2
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 4 AND SEARCHCC EQ 7)
                                SEARCHX=2
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 7 AND SEARCHCC EQ 1)
                                SEARCHX=5
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 7 AND SEARCHCC EQ 4)
                                SEARCHX=2
                IF              (SEARCHAA EQ 4 AND SEARCHBB EQ 7 AND SEARCHCC EQ 7)
                                SEARCHX=6
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 1 AND SEARCHCC EQ 1)
                                SEARCHX=1
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 1 AND SEARCHCC EQ 4)
                                SEARCHX=5
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 1 AND SEARCHCC EQ 7)
                                SEARCHX=6
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 4 AND SEARCHCC EQ 1)
                                SEARCHX=5
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 7 AND SEARCHCC EQ 1)
                                SEARCHX=6
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 1 AND SEARCHCC EQ 4)
                                SEARCHX=5
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 1 AND SEARCHCC EQ 7)
                                SEARCHX=6
                IF              (SEARCHAA EQ 7 AND SEARCHBB EQ 7 AND SEARCHCC EQ 7)
                                SEARCHX=6
                RECODE          SEARCHX (6=5)
                MISSING VALUES  SEARCHX (0)
                CODEBOOK        SEARCHX
                STATISTICS      ALL
```

APPENDIX K

Supplementary Tables Chapters VI and VII

Table 118

Job-Finding (Grouped) by Social Class (Respondent Characteristics 1969)

Method	1966		1967		1968		1969	
	Bottom Half	Top Half	Bottom Half	Top Half	Bottom Half	Top Half	Bottom Half	Top Half
Formal	11.2	20.5	13.8	19.9	14.7	24.4	15.2	21.1
Informal	77.4	68.4	77.7	70.8	76.7	64.9	73.0	59.6
Other	11.4	11.1	8.5	9.3	8.6	10.7	11.8	19.3
Number	1556	799	986	442	973	365	1098	374
Significance	$x^2(38\underline{^{w}}2\text{ D.F.})$ $= .0001$ $v^2 = .12$		$x^2(9\underline{^{w}}2\text{ D.F.})$ $= .0001$ $v^2 = .08$		$x^2(21\underline{^{w}}2\text{ D.F.})$ $= .0001$ $v^2 = .12$		$x^2(24\underline{^{w}}2\text{ D.F.})$ $= .0001$ $v^2 = .12$	

Table 119

Job-Finding by Social Class (Duncan) 1966 - 1969 (Percents)

Method	1966		1967		1968		1969	
	Class I	Class II	Class I	Class II	Class I	Class II	Class I	Class II
School Empl Svc	3.9	3.1	6.1	6.4	6.7	8.4	4.7	7.9
Pub Empl Svc	4.6	1.6	3.6	2.6	3.6	2.5	5.2	2.2
Pvt Empl Svc	0.5	1.5	1.1	1.5	2.2	2.0	1.2	2.2
Direct Application	24.5	23.7	27.1	26.9	28.5	26.2	24.0	20.4
Newspaper	4.1	4.5	4.7	5.6	4.2	5.1	5.7	4.2
Friends-Relatives	51.5	48.7	49.6	47.4	46.3	46.4	47.6	45.3
Other	10.9	12.0	7.7	9.6	8.6	9.4	11.6	17.8
Number	1673	1006*	996	606	882	511	805	455
Significance	$x^2(44\underline{w}$ 6D.F.)=.0001 $v^2 = .12$		$x^2(4\underline{w}$ 6D.F.)=.66 $v^2 = .06$		$x^2(3.9\underline{w}$ 6D.F.)=.68 $v^2 = .05$		$x^2(24\underline{w}$ 6D.F.)=.0004 $v^2 = .13$	

Table 120

Job-Finding (Grouped) by Social Class (Duncan) 1966 - 1969 (Percents)

Method	1966		1967		1968		1969	
	Class I	Class II	Class I	Class II	Class I	Class II	Class I	Class II
Formal	13.1	15.6	15.6	16.2	16.7	18.0	16.9	16.5
Informal	76.0	72.4	76.7	74.3	74.7	72.6	71.6	65.7
Other	10.9	12.0	7.7	9.6	8.6	9.4	11.6	17.8
Number	1673	1006	996	606	882	511	805	455
Significance	$x^2(4.5\underline{w}$ 2D.F.)=.10 $v^2 = .04$		$x^2(1.9\underline{w}$ 2D.F.)=.38 $v^2 = .02$		$x^2(.75\underline{w}$ 2D.F.)=.68 $v^2 = .02$		$x^2(9.6\underline{w}$ 2D.F.)=.007 $v^2 = .08$	

*May not total due to missing observations.

Table 121

Job-Finding by Race by Social Class Based on Duncan of Respondent's Father 1966 - 1969 (Percents)

Method	1966				1967			
	Duncan I		Duncan II		Duncan I		Duncan II	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
School Empl Svc	3.8	3.8	7.9	9.4*	5.5	7.0	5.5	1.2
Pub Empl Svc	4.2	5.3	1.5	3.8*	3.2	4.0	2.5	5.7*
Pvt Empl Svc	0.7	0.3*	1.6	0.0	1.2	1.0	1.4	0.0
Direct Application	25.0	23.0	24.3	11.3	28.3	25.9	26.4	37.1
Newspaper	4.6	3.3	4.0	3.2	5.5	3.5	5.5	8.6*
Friends-Relatives	48.1	56.8	48.4	54.7	48.4	51.1	49.0	22.9
Other	13.1	7.5	2.3	7.5	8.0	7.5	9.7	5.7
Number	1027	639	946	53	587	401	565	35
Significance	$x^2(13^{\underline{w}}$ 6D.F.)=.04 v^2 = .11		$x^2(16^{\underline{w}}$ 6D.F.)=.009 v^2 = .13		$x^2(4.2^{\underline{w}}$ 6D.F.)=.63 v^2 = .06		$x^2(20^{\underline{w}}$ 6D.F.)=.0002 v^2 = .18	

	1968				1969			
School Empl Svc	6.3	7.3	8.1	14.3*	4.7	4.8	8.2	4.3*
Pub Empl Svc	2.4	5.2	2.5	2.9*	3.3	7.7	2.1	4.3*
Pvt Empl Svc	2.2	2.1	1.5	8.6*	1.6	0.9*	2.3	0.0
Direct Application	32.3	23.6	27.4	14.3*	21.8	27.1	20.8	13.0*
Newspaper	4.5	3.9	5.1	5.7*	7.3	3.4	4.0	4.3*
Friends-Relatives	43.4	49.7	46.5	50.0	48.4	46.2	43.7	73.9
Other	8.9	8.3	8.9	14.3*	12.9	10.0	18.9	0.0
Number	493	386	471	35	450	351	435	23
Significance	$x^2(13^{\underline{w}}$ 6D.F.)=.04 v^2 = .12		$x^2(13^{\underline{w}}$ 6D.F.)=.03 v^2 = .16		$x^2(17^{\underline{w}}$ 6D.F.)=.008 v^2 = .14		$x^2(10^{\underline{w}}$ 6D.F.)=.09 v^2 = .13	

*Less than 5 cases

Table 122

Job-Finding (Grouped) by Race Controlling for Class
(Based on Duncan of Father)
1966 - 1969 (Percent)

Method	1966				1967			
	I		II		I		II	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Formal	13.2	12.7	15.0	26.4	15.3	15.3	14.9	34.3
Informal	73.6	79.8	72.7	66.0	76.7	77.1	75.4	60.0
Other	13.1	7.5	12.3	7.5	8.0	7.5*	9.7	5.7*
Number	1027	639	946	53	587	401	565	35
Significance	x^2(13$\underline{W}$2D.F.) = .001 v^2 = .08		x^2(5.4$\underline{W}$2 D.F.)= .06 v^2 = .07		x^2(.09$\underline{W}$2D.F.) = .95 v^2 = .09		x^2(9$\underline{W}$2D.F.) = .009 v^2 = .12	

	1968				1969			
Formal	15.4	18.4	17.2	31.4	16.9	16.8	16.6	13.0
Informal	75.7	73.3	73.9	54.3	70.2	73.2	64.5	87.0
Other	8.9	8.3	8.9	14.3	12.9	10.0	18.9	0.0
Number	493	386	471	35	450	351	428	23
Significance	x^2(2$\underline{W}$2D.F.) = .49 v^2 = .009		x^2(8.2$\underline{W}$ 2D.F.)=.001 v^2 = .18		x^2(1 $\underline{W}$ 2D.F.) =.42 v^2 = .06		x^2(6.1$\underline{W}$2 D.F.)= .04 v^2 = .11	

*Represents less than 5 cases

Table 123

Job-Finding by Race by Social Class (Based on Respondent Characteristics) 1966 - 1969 (Percents)

Method	1966				1967			
	Bottom Half		Top Half		Bottom Half		Top Half	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
School Empl Svc	3.7	2.7	8.9	9.9	4.3	7.1	7.0	9.9
Pub Empl Svc	2.6	4.5	3.3	6.9	3.4	4.3	2.2	9.9
Pvt Empl Svc	0.6	0.0	2.3	1.0*	0.8	0.0	3.2	0.0
Direct Application	23.4	23.6	25.7	20.8	27.6	25.2	32.1	25.4
Newspapers	4.2	3.7	5.8	4.0	4.6	2.8	5.9	8.5
Friends-Relatives	52.1	58.0	42.9	46.5	50.2	53.1	40.4	36.6
Other	13.5	7.4	11.1	10.9	9.1	7.7	9.2	9.9
Number	1032	512	693	101	648	326	371	71
Significance	x^2(21$\underline{w}$6 D.F.) = .001 v^2 = .11		x^2(5.4$\underline{w}$6 D.F.) = .48 v^2 = .08		x^2(9$\underline{w}$6 D.F.) = .15 v^2 = .09		x^2(15$\underline{w}$6 D.F.) = .01 v^2 = .18	

	1968				1969			
School Empl Svc	5.9	6.8	9.9	17.3	5.4	4.0	7.2	11.3
Pub Empl Svc	2.3	4.2	3.5	6.2	2.9	7.5	2.8	7.5*
Pvt Empl Svc	0.9	1.9	4.2	0.0	0.6*	0.8*	4.7	3.8*
Direct Application	28.9	27.5	30.6	17.3	22.9	25.8	19.1	24.5
Newspapers	4.5	3.7	6.0	3.7	5.9	3.5	5.6	3.8
Friends-Relatives	49.1	46.6	35.2	44.4	49.2	48.6	39.4	41.5
Other	8.3	9.3	10.6	11.1	13.2	9.8	21.3	7.5
Number	640	324	284	81	691	399	320	53
Significance	x^2(6$\underline{w}$6 D.F.) = .48 v^2 = .07		x^2(14$\underline{w}$6 D.F.) = .03 v^2 = .19		x^2(19$\underline{w}$6 D.F.) = .003 v^2 = .13		x^2(9$\underline{w}$6 D.F.) = .14 v^2 = .15	

*less than five cases

Table 124

Job-Finding (Grouped) By Race
Controlling for Social Class
(Based on Respondent Characteristics)
1966 - 1969 (Percents)

Method	1966				1967			
	Bottom Half		Top Half		Bottom Half		Top Half	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Formal	11.0	10.9	20.3	21.8	13.1	14.1	18.3	28.2
Informal	75.5	81.6	68.5	67.3	77.8	78.2	72.5	62.0
Other	13.5	7.4	11.1	10.9	9.1	7.7	9.2	9.9
Number	1032	512	693	101	648	326	371	71
Significance	x^2(13$\underline{^{w}}$2 D.F.) = .001 v^2 = .09		x^2(.1$\underline{^{w}}$2 D.F.) = .94 v^2 = .01		x^2(.6$\underline{^{w}}$2 D.F.) = .71 v^2 = .02		x^2(4$\underline{^{w}}$2 D.F.) = .14 v^2 = .09	

	1968				1969			
Formal	13.8	16.7	23.0	27.2	14.8	15.8	20.3	26.4
Informal	78.0	74.1	65.8	61.7	72.1	74.4	58.4	61.0
Other	8.3	9.3	10.6	11.1	73.2	9.8	21.3	7.5
Number	640	324	284	81	691	399	320	53
Significance	x^2(2$\underline{^{w}}$2 D.F.) = .38 v^2 = .04		x^2(.5$\underline{^{w}}$7 D.F.) = .77 v = .05		x^2(3$\underline{^{w}}$2 D.F.) = .24 v^2 = .05		x^2(6$\underline{^{w}}$2 D.F.) = .05 v^2 = .12	

Table 125

Job-Finding by Race 1966 - 1969 Controlling for Age (Percents)

Method	1966					
	14-17		18-21		22+	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
School Empl Svc	4.8	6.9	9.0	4.2	2.2	1.1
Pub Empl Svc	0.6*	1.6	2.8	6.3	5.3	10.6
Pvt Empl Svc	0.1*	0.3*	1.2	0.0	2.4	0.5*
Direct Application	23.0	25.0	23.8	19.8	29.3	21.3
Newspaper	2.8	0.8*	4.2	5.9	7.5	7.4
Friends-Relatives	55.9	55.8	47.0	57.3	40.4	54.8
Other	12.7	9.6	12.0	6.6	12.5	4.3
Number	787	364	777	288	638	188
Significance	$x^2(12\underline{w}6$ D.F.) = .06 $v^2 = .10$		$x^2(29\underline{w}6$ D.F.) = .0001 $v^2 = .16$		$x^2(30\underline{w}6$ D.F.) = .18 $v^2 = .18$	
	1967					
School Empl Svc	6.6	5.4	6.1	5.4	2.4	1.6*
Pub Empl Svc	0.7*	5.4	3.8	5.4	3.8	6.5
Pvt Empl Svc	0.5*	1.3*	1.5	1.3*	2.7	0.8
Direct Application	27.8	30.5	27.8	30.5	31.9	26.8
Newspaper	3.4	3.6	4.0	3.6	9.1	5.7
Friends-Relatives	54.8	47.5	48.1	47.5	39.2	46.3
Other	6.3	6.3	8.7	6.3	10.9	12.2
Number	442	223	528	223	339	123
Significance	$x^2(24\underline{w}6$ D.F.) = .0005 $v^2 = .19$		$x^2(2.7\underline{w}6$ D.F.) = .84 $v^2 = .06$		$x^2(6.3\underline{w}6$ D.F.) = .38 $v^2 = .11$	

Table 125—Continued

Method	1968					
	14-17		18-21		22+	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
School Empl Svc	8.3	13.2	8.9	7.9	2.2	3.1*
Pub Empl Svc	1.5*	1.6*	2.5	5.2	4.7	7.8
Pvt Empl Svc	0.9*	0.8*	1.7	2.8	3.2	3.1
Direct Application	25.6	27.9	30.4	19.8	33.8	29.7
Newspaper	4.0	1.6*	4.3	4.8	6.8	4.7
Friends-Relatives	52.8	45.7	43.1	49.2	37.4	44.5
Other	6.8	9.3	9.1	10.3	11.9	7.0
Number	324	129	483	252	278	128
Significance	x^2(5.8$\underline{\text{w}}$6 D.F.) = .44 v^2 = .11		x^2(13$\underline{\text{w}}$6 D.F.) = .03 v^2 = .13		x^2(6$\underline{\text{w}}$6 D.F.) = .41 v^2 = .12	

	1969					
School Empl Svc	10.7	12.7	7.6	5.4	1.2*	0.0
Pub Empl Svc	2.4*	6.3*	3.2	8.2	2.6	6.8
Pvt Empl Svc	1.2*	0.0	1.0*	1.6*	3.5	0.8*
Direct Application	21.3	25.4	21.5	23.3	22.1	30.3
Newspaper	5.3	3.2*	5.2	3.9	7.1	3.0
Friends-Relatives	50.9	41.3	50.1	48.6	37.9	49.2
Other	8.3	11.1	11.5	8.9	25.6	9.8
Number	169	63	503	257	340	132
Significance	x^2(5.1$\underline{\text{w}}$6 D.F.) = .53 v^2 = .14		x^2(12$\underline{\text{w}}$6 D.F.) = .05 v^2 = .12		x^2(28$\underline{\text{w}}$6 D.F.) = .0001 v^2 = .24	

*Less than 5 cases

Table 126

Job-Finding by Age 1966 - 1969 Controlling for Race (Percents)

Method	1966					
	Whites			Blacks		
	14-17	18-21	22+	14-17	18-21	22+
School Empl Svc	4.8	9.0	2.3	6.9	4.2	1.1*
Pub Empl Svc	0.6*	2.8	5.3	1.6	6.3	0.6
Pvt Empl Svc	0.1*	1.2	2.4	0.3*	0.0	0.5*
Direct Application	23.0	23.8	29.3	25.0	19.8	21.3
Newspapers	2.8	4.2	7.5	0.8*	5.9	7.4
Friends-Relatives	55.9	47.0	40.7	55.8	57.3	54.8
Other	12.7	12.0	12.5	9.6	6.6	4.3
Number of Cases	787	777	638	364	288	188
Significance	$x^2(112\underline{\text{W}}12$ D.F.) = .0001 v^2 = .16			$x^2(55\underline{\text{W}}12$ D.F.) = .0001 v^2 = .16		
	1967					
School Empl Svc	6.6	6.1	2.4	14.2	5.4	1.6*
Pub Empl Svc	0.7*	3.8	3.8	4.7	5.4	6.5
Pvt Empl Svc	0.5*	1.5	2.7	0.0	1.3*	0.8*
Direct Application	27.8	27.8	31.9	24.2	30.5	26.8
Newspapers	3.4	4.0	9.1	1.6*	3.6	5.7
Friends-Relatives	54.8	48.1	39.2	48.9	47.5	46.3
Other	6.3	8.7	10.9	6.3	6.3	12.2
Number of Cases	442	528	339	190	223	123
Significance	$x^2(54\underline{\text{W}}12$ D.F.) = .0001 v^2 = .14			$x^2(30\underline{\text{W}}12$ D.F.) = .002 v^2 = .16		

Table 126—Continued

Method	1968					
	Whites			Blacks		
	14-17	18-21	22+	14-17	18-21	22+
School Empl Svc	8.3	8.9	2.2	13.2	7.9	3.1
Pub Empl Svc	1.5*	2.5	4.7	1.6*	5.2	7.8
Pvt Empl Svc	0.9*	1.7	3.2	0.8	2.8	3.1
Direct Application	25.6	30.4	33.8	27.9	19.8	29.7
Newspapers	4.0	4.3	6.8	1.6*	4.8	4.7
Friends-Relatives	52.8	43.1	37.4	45.7	49.2	44.5
Other	6.8	9.1	11.9	9.3	10.3	7.0
Number of Cases	324	483	278	129	252	128
Significance	x^2(42$\underline{\text{W}}$12 D.F.) = .0001 v^2 = .13			x^2(23$\underline{\text{W}}$12 D.F.) = .02 v^2 = .15		
	1969					
School Empl Svc	10.7	7.6	1.2	12.7	5.4	0.0
Pub Empl Svc	2.4*	3.2	2.6	6.3	8.2	6.8
Pvt Empl Svc	1.2*	1.0*	3.5	0.0	1.6	0.8*
Direct Application	21.3	21.5	22.1	25.4	23.3	30.3
Newspapers	5.3	5.2	7.1	3.2*	3.9*	3.0*
Friends-Relatives	50.9	50.1	37.9	41.3	48.6	49.2
Other	8.3	11.5	25.6	11.1	8.9	9.8
Number of Cases	169	503	340	63	257	132
Significance	x^2(71$\underline{\text{W}}$12 D.F.) = .0001 v^2 = .18			x^2(19$\underline{\text{W}}$12 D.F.) = .08 v^2 = .14		

*Less than 5 cases.

Table 127

Job-Finding by Education by Race
1966 - 1969 (Percents)

Method	1966					
	Whites			Blacks		
	0-11	12	13-15	0-11	12	13-15
School Empl Svc	3.0	5.3	14.6	4.7	2.6	13.0
Pub Empl Svc	1.7	4.6	2.2	3.3	8.3	17.4
Pvt Empl Svc	0.5	1.6	2.2	0.2	0.5	0.0
Direct Application	24.9	24.8	26.4	24.3	19.3	10.9
Newspapers	3.5	6.3	5.1	2.7	6.8	10.9
Friends-Relatives	54.5	44.6	36.5	57.5	55.7	39.1
Other	12.0	12.8	12.9	31.5	6.8	8.7
Number	1111	735	356	602	192	46
Significance	x^2(118$^{\underline{W}}$12 D.F.) = .001 v^2 = .11			x^2(49$^{\underline{W}}$12 D.F.) = .0001 v^2 = .17		
	1967					
School Empl Svc	3.8	4.7	9.6	8.7	3.9	12.5
Pub Empl Svc	2.4	3.5	2.6	5.2	5.9	5.0
Pvt Empl Svc	0.3*	2.5	2.6	0.9	0.0	2.5
Direct Application	27.6	30.6	29.2	26.7	29.6	25.0
Newspapers	4.3	6.4	5.3	2.3	5.3	5.0
Friends-Relatives	55.1	40.0	43.5	50.0	45.4	37.5
Other	6.5	12.3	7.4	6.1	9.9	12.5
Number	633	405	271	344	152	40
Significance	x^2(51$^{\underline{W}}$12 D.F.) = .001 v^2 = .13			x^2(16$^{\underline{W}}$12 D.F.) = .0001 v^2 = .12		

*Less than five cases

Table 127—Continued

Method	1968					
	Whites			Blacks		
	0-11	12	13-15	0-11	12	13-15
School Empl Svc	4.2	6.2	13.7	6.8	4.7	25.0
Pub Empl Svc	2.8	2.9	2.5	3.9	6.7	5.8
Pvt Empl Svc	0.8	2.7	2.5	2.0	3.3	1.9
Direct Application	29.1	31.6	28.6	28.0	22.7	7.7
Newspapers	3.8	6.4	4.6	3.3	4.7	5.8
Friends-Relatives	51.2	39.4	39.4	45.6	50.7	46.2
Other	8.1	10.7	8.7	10.4	7.3	7.7
Number	471	373	241	307	150	52
Significance	x^2(39$^{\underline{w}}$12 D.F.) = .0001 v^2 = .13			x^2(34$^{\underline{w}}$12 D.F.) = .0001 v^2 = .18		

	1969					
School Empl Svc	2.8	5.8	9.6	2.9	5.3	14.3
Pub Empl Svc	2.8	3.1	2.5	5.4	9.9	9.5
Pvt Empl Svc	0.6	1.7	3.6	0.8	1.8	0.0
Direct Application	24.3	21.7	18.5	26.8	24.6	23.8
Newspapers	6.0	6.3	5.0	4.2	2.9	2.4
Friends-Relatives	49.2	45.2	44.1	49.4	47.4	40.5
Other	14.2	16.2	16.7	10.5	8.2	9.5
Number	317	417	281	239	171	42
Significance	x^2(23$^{\underline{w}}$12 D.F.) = .12 v^2 = .10			x^2(16$^{\underline{w}}$12 D.F.) = .26 v^2 = .13		

Table 128

Job-Finding (Grouped) by SMSA Location by Race
1966 - 1968

Method	1966 Whites Central City SMSA	 Non-Central City SMSA	 Outside SMSA	 Blacks Central City SMSA	 Non-Central City SMSA	 Outside SMSA
Formal	18.3	14.2	12.9	22.3	14.8	12.4
Informal	74.2	78.9	76.7	69.8	78.7	79.8
Other	7.5	6.9	10.4	7.9	6.6	7.7
Number	295	451	558	242	61	233
Significance	$x^2(9^{\underline{w}}4 \text{ D.F.}) = .07$ $v^2 = .06$			$x^2(9^{\underline{w}}4 \text{ D.F.}) = .06$ $v^2 = .09$		
	1967					
Formal	19.2	14.9	11.0	22.7	13.8	6.1
Informal	68.7	75.2	74.3	70.5	80.9	85.4
Other	12.1	10.0	14.7	6.8	5.3	8.5
Number	511	773	912	366	94	378
Significance	$x^2(25^{\underline{w}}4 \text{ D.F.}) = .0001$ $v^2 = .11$			$x^2(43^{\underline{w}}4 \text{ D.F.}) = .0001$ $v^2 = .16$		
	1968					
Formal	20.2	17.9	13.5	23.5	20.6	12.9
Informal	69.5	73.9	77.8	66.3	71.4	78.9
Other	10.3	8.3	8.6	10.3	7.9	8.2
Number	243	375	451	243	63	194
Significance	$x^2(7^{\underline{w}}4 \text{ D.F.}) = .13$ $v^2 = .06$			$x^2(9^{\underline{w}}4 \text{ D.F.}) = .05$ $v^2 = .10$		

Table 129

Job-Finding by SMSA Location at Time of Sample Selection by Race - 1966

Method	Whites			Blacks		
	Central City SMSA	Non-Central City SMSA	Outside SMSA	Central City SMSA	Non-Central City SMSA	Outside SMSA
School Empl Svc	6.8	6.2	4.5	5.7	7.4	2.9
Pub Empl Svc	2.9	2.5	3.0	8.5	3.2	2.6
Pvt Empl Svc	2.5	1.4	0.1	0.5	0.0	0.0
Direct Application	23.7	25.7	25.3	16.9	25.5	26.7
Newspaper	6.8	4.8	3.4	7.9	3.2	0.5
Friends-Relatives	45.0	49.4	49.0	53.6	55.3	58.7
Other	12.1	10.0	14.7	6.8	5.3	8.5
Number	511	773	912	366	94	378
Significance	x^2(40$^{\underline{w}}$12 D.F.) = .0001 v^2 = .10			x^2(56$^{\underline{w}}$12 D.F.) = .0001 v^2 = .18		

Table 130

Job-Finding by SMSA Location by Race - 1967

Method	Whites			Blacks		
	Central City SMSA	Non-Central City SMSA	Outside SMSA	Central City SMSA	Non-Central City SMSA	Outside SMSA
School Empl Svc	6.2	7.2	7.3	7.0	7.9	9.3
Pub Empl Svc	3.7	1.9	3.1	4.9	9.5	2.6
Pvt Empl Svc	2.9	2.4	0.8	3.7	1.6	1.0
Direct Application	28.4	26.9	33.7	21.8	14.3	32.0
Newspaper	7.4	6.4	2.2	7.8	1.6	0.0
Friends-Relatives	41.2	46.9	44.1	44.4	57.1	46.9
Other	10.3	8.3	8.6	10.3	7.9	8.2
Number	243	375	451	243	63	194
Significance	x^2(23$^{\underline{w}}$12 D.F.) = .02 v^2 = .10			x^2(37$^{\underline{w}}$12 D.F.) = .0002 v^2 = .19		

Table 131

Job-Finding by SMSA Location by Race 1968

Method	Whites			Blacks		
	Central City SMSA	Non-Central City SMSA	Outside SMSA	Central City SMSA	Non-Central City SMSA	Outside SMSA
School Empl Svc	6.2	7.2	7.3	7.0	7.9	9.3
Pub Empl Svc	3.7	1.9	3.1	4.9	9.5	2.6
Pvt Empl Svc	2.9	2.4	0.9*	3.7	1.6*	1.0*
Direct Application	28.4	26.9	33.7	21.8	14.3	32.0
Newspaper	7.4	6.4	2.2	7.8	1.6*	0.0
Friends-Relatives	41.2	26.9	44.1	44.4	57.1	46.9
Other	10.3	8.3	8.6	10.3	7.9	8.2
Number	243	375	451	243	63	194
Significance	$x^2(23^{\underline{w}}12\text{D.F.}) = .03$ $v^2 = .20$			$x^2(37^{\underline{w}}12\text{D.F.}) = .0002$ $v^2 = .19$		

*Less than 5 cases

Table 132

Frequency Distributions of Industry of Current Job - Sample A - by Race

Industry	Whites				Blacks			
	1966	1967	1968	1969	1966	1967	1968	1969
Agriculture	9.4	6.1	4.7	4.0	18.2	7.8	7.5	5.3
Mining & Construction	7.9	8.6	12.0	15.8	6.8	10.3	13.0	12.4
Manufacturing	28.7	25.7	24.3	27.3	29.5	29.9	32.0	33.8
Transportation, Finance, Business & Repair Svc	11.1	10.8	11.4	13.6	9.6	9.1	10.4	15.0
Trade	26.9	29.6	32.4	25.5	21.7	20.9	23.4	19.0
Personal Service	4.5	3.8	2.7	2.2	6.8	5.6	1.6	2.9
Entertainment & Recreation	2.7	2.1	1.8	1.2	1.9	1.3	1.8	1.8
Professional	6.3	7.8	1.5	8.5	7.4	9.5	2.5	6.4
Public Administration	2.2	2.4	2.2	2.0	2.7	3.5	1.9	2.9
Number	221	1269	1009	1012	837	525	830	450

Table 133

Frequency Distributions of Occupation of Current Job Sample A - by Race

Industry	Whites				Blacks			
	1966	1967	1968	1969	1966	1967	1968	1969
Professional-Technical	6.3	6.3	7.1	7.5	1.2	1.5	2.6	3.5
Manager	3.0	4.7	4.1	4.5	0.7	0.7	0.8	0.9
Clerical	9.8	10.6	7.1	10.5	6.7	9.9	10.8	11.9
Sales	7.5	5.3	5.9	7.6	2.4	1.7	1.4	1.1
Craftsman	14.4	14.2	13.8	15.9	8.1	8.4	9.4	9.7
Operative	24.9	24.5	29.8	28.0	25.1	29.9	29.3	33.8
Laborer	14.2	15.0	16.7	14.9	20.1	22.9	23.6	22.3
Service	11.3	11.3	11.4	7.8	18.3	16.6	15.7	11.7
Farmer	1.2	0.6	0.4	0.4	0.2	0.2	6.3	0.2
Farm Labor	7.3	4.4	3.1	2.8	15.8	6.3	0.2	4.6
Number	2202	1309	1085	1012	840	536	509	752

Table 134

Race by Occupation and Industry-1966

Race by Current Occupation		
Occupation	Whites	Blacks
Professional-Managerial	9.2	1.9
Clerical-Sales	17.0	9.2
Craftsman-Operative	39.1	33.3
Laborer	14.3	20.2
Service	11.2	18.3
Farm	8.6	15.9
Number	2217	848
Significance	x^2(148$^{\underline{w}}$6 D.F.) = .0001 v^2 = .22	

Race by Industry of Current-Last Job		
Industry	Whites	Blacks
Agriculture	9.5	18.0
Mining-Construction	8.0	6.7
Manufacturing	28.6	24.5
Transportation	11.0	9.8
Wholesale-Retail Trade	26.9	21.5
Personal Services	4.4	7.0
Entertainment-Recreation	2.7	2.0
Professional Related Services	6.3	7.3
Public Administration	2.3	2.8
Number	2217	848
Significance	x^2(62$^{\underline{w}}$9 D.F.) = .001 v^2 = .14	

Table 135

Industry and Occupation of Current-Last Job by Social Class 1967

Occupation	Whites		Blacks	
	Bottom Half	Upper Half	Bottom Half	Upper Half
Professional-Managerial	4.6	23.4	0.6	11.1
Clerical-Sales	9.3	27.7	6.1	26.4
Craftsman-Operative	44.6	29.0	28.7	27.8
Laborer	17.0	7.5	25.5	15.3
Service	13.6	8.6	18.4	15.3
Farm	7.9	1.1	8.6	1.4
Number	648	372	326	72
Significance	$x^2(178^{\underline{w}}6D.F.) = .001$ $v^2 = .42$		$x^2(60^{\underline{w}}6D.F.) = .001$ $v^2 = .39$	

Industry				
Agriculture	9.1	1.6	10.1	1.4
Construction	9.0	7.8	13.2	5.6
Manufacturing	28.4	20.7	28.8	34.7
Transportation	9.1	14.8	7.7	11.1
Trade	26.9	33.1	20.9	18.1
Personal	5.1	1.6	5.5	4.2
Entertainment-Recreation	2.6	1.6	0.6	4.2
Professional	6.0	11.3	8.6	16.7
Public Administration	1.9	4.0	2.5	4.2
Number	648	372	326	72
Significance	$x^2(50^{\underline{w}}9D.F.) = .001$ $v^2 = .24$		$x^2(22^{\underline{w}}9D.F.) = .001$ $v^2 = .24$	

Table 136

Age by Occupation of Current-Last Job - 1967

Occupation	Whites			Blacks		
	14-17	18-21	22+	14-17	18-21	22+
Professional-Managerial	4.1	14.4	14.7	1.6	2.2	3.2
Clerical-Sales	14.7	18.3	13.6	10.0	11.2	14.5
Craftsman-Operative	27.1	38.9	53.7	28.4	42.9	45.2
Laborer	24.9	11.5	7.7	26.8	22.3	18.5
Service	19.9	8.9	3.8	23.2	14.7	9.7
Farm	7.7	4.3	2.7	7.9	4.0	8.9
Number	442	529	339	190	224	124
Significance	x^2(176$\underline{\text{w}}$12D.F.)=.001 v^2 = .26			x^2(28$\underline{\text{w}}$12D.F.)=.001 v^2 = .16		

Table 137

Age by Industry of Current-Last Job - 1967

Industry						
Agriculture	9.0	5.5	3.2	8.9	5.8	9.7
Mining-Construction	4.5	9.3	13.0	6.8	9.4	16.9
Manufacturing	14.3	27.2	38.3	20.5	32.6	39.5
Transportation	7.2	11.2	14.7	6.3	10.7	11.3
Wholesale-Retail Trade	42.5	25.7	18.6	27.9	19.6	12.1
Personal Services	7.5	2.5	1.2	10.0	4.0	1.6
Entertainment-Recreation	4.8	1.1	0.3	1.1	1.3	1.6
Professional	7.5	10.6	3.8	10.5	11.2	4.8
Public Administration	0.5	3.6	3.2	6.3	2.2	1.6
Number	442	529	339	190	224	124
Significance	x^2(194$\underline{\text{w}}$18D.F.)=.001 v^2 = .27			x^2(56$\underline{\text{w}}$18D.F.)=.001 v^2 = .23		

Table 138

Respondent Education by Occupation of Curr[illegible] Last Job
1967

Occupation	Whites			Blacks		
	Years			Years		
	0-11	12	13-15	0-11	12	13-15
Professional-Managerial	4.9	10.6	25.8	0.9	2.6	12.5
Clerical-Sales	11.2	17.7	24.0	6.7	16.3	35.0
Craftsman-Operative	38.1	49.0	25.1	35.4	49.0	22.5
Laborer	22.0	9.6	7.0	28.1	16.3	5.0
Service	14.8	5.4	11.8	18.0	13.1	17.5
Farm	6.8	3.7	3.0	9.3	1.3	2.5
Number	633	406	271	345	153	40
Significance	$x^2(190^{\underline{W}}12D.F.)=.001$ $v^2 = .27$			$x^2(87^{\underline{W}}12D.F.)=.001$ $v^2 = .28$		

Table 139

Respondent Education by Industry of Current-Last Job

Industry						
Agriculture	8.5	4.2	3.3	11.0	2.0	2.5
Mining-Construction	8.1	10.8	6.6	11.6	8.5	5.0
Manufacturing	22.6	35.5	18.5	24.9	41.2	30.0
Transportation	8.5	11.1	15.5	7.5	12.4	12.5
Trade	35.1	24.6	24.0	21.7	21.6	10.0
Personal Service	4.9	2.0	4.1	7.2	2.6	2.5
Entertainment-Recreation	3.3	1.5	0.4	1.4	0.0	5.0
Professional	6.0	3.9	17.7	8.1	6.5	32.5
Public Administration	0.3	3.2	6.3	4.3	2.6	0.0
Number	633	406	271	345	153	40
Significance	$x^2(149^{\underline{W}}18D.F.)=.001$ $v^2 = .24$			$x^2(69^{\underline{W}}18D.F.)=.001$ $v^2 = .25$		

Table 140

Job-Finding (Grouped) by Occupation by Race - 1967

Method	Prof-Tech	Manager	Clerical	Sales	Craftsman	Operative	Laborer	Service	Farmer	Farm Labor
	Whites									
Formal	25.3	19.7	20.1	14.5	14.0	11.8	9.1	17.6	12.5	5.2
Informal	55.4	70.5	69.1	82.6	76.3	81.0	83.2	77.7	62.5	89.7
Other	19.3	9.8	10.8	2.9	9.7	7.2	7.6	4.7	25.0	5.2
Number	83	61	139	69	186	321	197	148	8	58
Significance	x^2 (54$^{\underline{W}}$ 20 D. F.) = .0001 v^2 = .14									
	Blacks									
Formal	25.0	0.0	30.2	22.2	17.8	12.5	13.0	28.1	0.0	5.9
Informal	50.0	75.0	60.4	77.8	71.1	82.5	79.7	65.2	0.0	85.3
Other	25.0	25.0	9.4	0.0	11.1	5.0	7.3	6.7	100.0	8.8
Number	8	4	53	9	45	160	123	89	1	34
Significance	x^2 (44$^{\underline{W}}$ 20 D.F.) = .001 v^2 = .20									

Table 141

Job-Finding by Occupation - Blacks
1966 and 1969

Method	Prof-Tech	Manager	Clerical	Sales	Craftsman	Operative	Laborer	Service	Farmer	Farm Labor	Total
					1966						
Sch Empl Svc	10.0	0.0	8.9	5.0	5.9	2.8	3.6	8.4	0.0	2.3	4.6
Pub Empl Svc	10.0	0.0	3.6	10.0	10.3	10.9	2.4	1.9	0.0	0.0	5.2
Pvt Empl Svc	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Dir Appl	10.0	33.3	25.0	15.0	16.2	22.3	26.6	17.5	0.0	27.8	22.4
Newspaper	10.0	16.7	12.5	0.0	4.4	4.7	2.4	5.2	0.0	0.0	4.0
Friends-Rel	60.0	33.3	39.3	50.0	60.3	55.9	59.8	61.0	50.0	52.6	56.1
Other	0.0	16.7	8.9	20.0	2.9	3.3	5.3	5.8	50.0	17.3	7.4
Number	10	6	56	20	68	211	169	154	2	133	
					1969						
Sch Empl Svc	25.0	0.0	13.0	20.0	2.3	2.6	0.0	9.4	0.0	0.0	4.9
Pub Empl Svc	12.5	0.0	13.0	0.0	9.1	9.2	2.0	7.5	0.0	4.8	7.5
Pvt Empl Svc	0.0	0.0	5.6	0.0	0.0	0.7	1.0	0.0	0.0	0.0	1.1
Dir Appl	12.5	50.0	27.8	40.0	36.4	26.1	23.8	18.9	0.0	23.8	25.7
Newspaper	6.3	0.0	1.9	20.0	4.5	4.6	2.0	3.8	0.0	0.0	3.5
Friends-Rel	31.3	0.0	27.8	20.0	34.1	47.7	65.3	52.8	100.0	57.1	47.8
Other	17.5	50.0	11.1	0.0	13.6	9.2	5.9	7.5	0.0	14.3	9.5
Number	16	4	54	5	44	153	101	53	1	21	7

Table 142

Job-Finding by Occupation - Whites
1966 and 1969

Method	Prof-Tech	Manager	Clerical	Sales	Craftsman	Operative	Laborer	Service	Farmer	Farm Labor	Total
						1966					
Sch Empl Svc	18.1	3.1	8.8	3.2	2.8	3.5	3.2	13.3	0.0	0.6	5.6
Pub Empl Svc	4.3	3.1	4.2	1.9	3.8	3.1	2.2	1.6	0.0	0.6	2.8
Pvt Empl Svc	2.2	3.1	3.3	0.6	1.6	0.9	0.3	0.4	0.0	0.0	1.1
Dir Appl	19.6	26.2	23.3	27.6	25.3	29.3	24.9	24.2	3.7	20.5	25.1
Newspaper	8.7	7.7	10.2	5.8	5.1	3.6	1.9	5.2	0.0	0.0	4.7
Friends-Rel	27.5	30.8	45.1	55.1	47.8	51.4	57.8	46.0	37.0	46.6	48.3
Other	19.6	26.2	5.1	5.8	13.6	8.2	9.6	9.3	59.3	31.7	12.4
Number	138	65	215	156	316	549	313	248	27	161	
						1969					
Sch Empl Svc	18.4	0.0	11.3	5.2	3.1	2.5	3.3	15.2	0.0	3.6	5.9
Pub Empl Svc	1.3	0.0	2.8	3.9	2.5	3.9	3.3	2.5	0.0	0.0	2.9
Pvt Empl Svc	3.9	4.3	5.7	3.9	1.2	0.4	0.7	1.3	0.0	0.0	1.9
Dir Appl	18.4	10.9	23.6	22.1	23.0	25.1	18.5	24.1	0.0	10.7	21.6
Newspaper	5.3	6.5	6.6	6.5	5.6	5.7	4.6	8.9	0.0	3.6	5.8
Friends-Rel	31.6	32.6	35.8	40.3	47.8	54.1	54.3	35.4	0.0	64.3	46.1
Other	21.1	45.7	14.2	18.2	16.8	8.5	15.2	12.7	10.0	17.9	15.7
Number	76	46	106	77	161	783	151	79	4	28	

Table 143

Job-Finding by Age by Occupation - Whites
1966 and 1968

Method	White Collar 14-17	White Collar 18-21	White Collar 22+	Blue Collar 14-17	Blue Collar 18-21	Blue Collar 22+	Service 14-17	Service 18-21	Service 22+
1966									
School Empl Svc	6.7	15.3	4.0	3.3	4.3	1.9	10.5	22.1	3.6
Pub Empl Svc	0.6	2.9	6.5	0.6	3.2	5.3	1.4	2.6	0.0
Pvt Empl Svc	0.0	2.4	4.0	0.3	0.9	1.6	0.0	0.0	3.6
Direct Application	20.7	20.1	30.3	25.6	25.0	31.0	21.0	31.2	21.4
Newspaper	7.3	6.7	10.9	1.9	3.4	5.3	2.1	5.2	21.4
Friends-Relatives	52.4	41.6	33.8	60.6	57.0	44.2	55.9	32.5	32.1
Other	12.2	11.0	10.4	7.8	11.1	10.8	56.5	21.7	21.7
Number	164	209	201	310	440	378	143	77	28
Significance	$x^2(47\underline{W}12D.F.) = .0001$ $v^2 = .20$			$x^2(42\underline{W}12D.F.) = .0001$ $v^2 = .13$			$x^2(45\underline{W}12D.F.) = 0001$ $v^2 = .30$		
1968									
School Empl Svc	12.5	19.4	6.1	5.9	3.1	0.6	12.9	20.4	0.0
Pub Empl Svc	0.0	4.0	2.4*	2.2	2.4	5.7	1.6	0.0	0.0
Pvt Empl Svc	3.6*	5.6	8.5	0.5	0.3	1.1	0.0	0.0	0.0
Direct Application	25.0	28.2	29.3	27.4	31.4	35.4	17.7	32.7	38.5
Newspaper	0.0	5.6	8.5	5.4	4.4	6.3	4.8	0.0	7.7
Friends-Relatives	48.2	28.2	30.5	52.2	48.5	41.1	59.7	40.8	23.1
Other	10.7	8.9	14.6	6.5	9.9	9.7	3.2	6.1	30.8
Number	56	124	82	186	293	175	12	49	13
Significance	$x^2(21\underline{W}12D.F.) = .04$ $v^2 = .10$			$x^2(21\underline{W}12D.F.) = .05$ $v^2 = .12$			$x^2(26\underline{W}10D.F.) = .004$ $v^2 = .32$		

*Less than 5 cases

Table 144

Job-Finding by Age by Occupation - Blacks
1966

Method	White Collar			Blue Collar			Service		
	14-17	18-21	22+	14-17	18-21	22+	14-17	18-21	22+
School Empl Svc	8.1	12.1	0.0	7.9	1.7	0.8	8.4	11.6	3.6
Pub Empl Svc	5.4	3.0	9.1	2.0	8.6	13.1	1.2	2.3	3.6
Pvt Empl Svc	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Direct Application	24.3	24.2	13.6	26.5	20.6	22.1	16.9	11.6	28.6
Newspaper	2.7	12.1	18.2	1.3	4.0	6.6	0.0	14.0	7.1
Friends-Relatives	45.9	36.4	50.0	57.6	61.1	54.1	67.5	55.8	50.0
Other	13.5	12.1	4.5	4.6	4.0	3.3	6.0	4.7	7.1
Number	37	33	22	151	175	122	83	43	28
Significance	$x^2(13\underline{^{w}}12D.F.) = .37$ $v^2 = .26$			$x^2(31\underline{^{w}}10D.F.) = .0006$ $v^2 = .18$			$x^2(17\underline{^{w}}10D.F.) = .07$ $v^2 = .23$		

Table 145

Job-Finding by Education by Occupation
1966

Method	Whites								
	White Collar			Blue Collar			Service		
	0-11 Years	12 Years	13-15 Years	0-11 Years	12 Years	13-15 Years	0-11 Years	12 Years	13-15 Years
School Empl Svc	5.3	5.4	16.5	1.9	3.9	8.2	7.1	20.8	26.1
Pub Empl Svc	0.5	6.9	2.7	2.2	4.3	2.7	1.9	2.1	0.0
Pvt Empl Svc	0.0	2.9	3.8	0.6	1.4	0.9	0.6	0.0	0.0
Direct Application	19.7	25.0	26.9	28.1	26.1	25.5	22.1	20.8	39.8
Newspaper	6.9	11.3	6.6	3.2	4.1	3.6	3.9	10.4	4.3
Friends-Relatives	53.7	39.2	33.0	56.3	48.5	42.7	55.8	33.3	26.1
Other	13.8	9.3	10.4	7.8	11.7	16.4	8.4	12.5	8.7
Number	188	204	183	631	437	110	164	48	46
Significance	$x^2(53\underline{W}12D.F.) = .0001$ $v^2 = .21$			$x^2(33\underline{W}12D.F.) = .001$ $v^2 = .11$			$x^2(29\underline{W}12D.F.) = .004$ $v^2 = .24$		
	Blacks								
School Empl Svc	6.3	3.8*	16.7*	4.5	0.8	5.9*	7.3	8.3	22.2
Pub Empl Svc	6.3*	0.0	11.1	4.8	12.4	23.5	0.9	2.8	11.0
Pvt Empl Svc	0.0	3.8*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Direct Application	22.9	26.9	11.1*	24.2	21.5	11.8*	21.1	8.3	11.1
Newspaper	2.1*	15.4	22.2	3.9	3.3	5.4*	2.8	13.9	0.0
Friends-Relatives	56.3	34.6	22.2*	58.1	38.7	52.9	62.4	58.3	55.6
Other	6.3*	15.4*	16.7*	4.5	3.3	0.0	5.5	8.3	0.0
Number	48	26	18	310	121	17	109	36	9
Significance	$x^2(22\underline{W}12D.F.) = .04$ $v^2 = .34$			$x^2(19\underline{W}10D.F.) = .04$ $v^2 = .14$			$x^2(18\underline{W}10D.F.) = .06$ $v^2 = .23$		

*Less than 5 cases

Table 146

Job-Finding by Industry - Whites - 1966 (Sample A)

Method	Agricul.	Mining and Const.	Manufac- turing	Transpor. Finance, Business Svc	Trade	Personal Svc	Enter- tainment	Profes. Svc	Pub. Admin.	
Sch Empl Svc	0.5 (0.8)	2.9 (4.0)	3.6 (18.5	4.9 (9.7)	4.0 (14.4)	5.1 (4.0)	3.3 (1.6)	34.1 (37.9	10.4 (4.0)	124 (5.6)
Pub Empl Svc	0.5 (1.6)	2.9 (8.4)	3.6 (37.7)	2.8 (9.8)	2.5 (24.6)	3.1 (4.9)	0.0 (0.0)	2.2 (4.9)	10.4 (8.2)	61 (2.8)
Pvt Empl Svc	0.0 (0.0)	1.7 (12.0)	1.7 (44.0)	2.5 (24.0)	0.8 (20.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	25 (1.1)
Dir Application	18.3 (6.9)	17.1 (5.4)	27.2 (31.1)	25.5 (11.4)	31.4 (33.6)	23.5 (4.2)	20.0 (2.2)	13.0 (3.3)	20.8 (1.8)	554 (25.1)
Newspaper	0.0 (0.0)	3.4 (5.8)	5.5 (34.0)	4.5 (10.7)	5.2 (30.1)	2.0 (1.9)	3.3 (1.9)	5.8 (7.8)	16.7 (7.8)	103 (4.7)
Friends-Rel	46.6 (9.1)	52.6 (8.7)	50.6 (30.1)	49.2 (11.3)	49.1 (27.4)	59.2 (5.5)	51.7 (2.9)	26.1 (3.4)	31.3 (1.4)	1063 (48.3)
Other	34.1 (26.0)	19.4 (12.5)	7.6 (17.6)	10.7 (9.5)	6.9 (15.0)	7.1 (2.6)	21.7 (4.8)	18.8 (9.5)	10.4 (1.8)	273 (12.4)
Number	208	175	632	264	993	98	60	138	48	

Table 147

Job-Finding by Industry - Blacks - 1967 (Sample A)

Method	Agricul.	Mining and Const.	Manufac-turing	Transpor., Finance, Business Svc	Trade	Personal Svc	Enter-tainment	Profes. Svc	Pub. Admin.	
Sch Empl Svc	2.0 (7.7)	1.8 (2.6)	0.5 (2.6)	4.9 (10.6)	4.4 (20.5)	1.8 (2.6)	6.3 (2.6)	24.2 (38.5)	21.7 (12.8)	39 (4.6)
Pub Empl Svc	0.0 (0.0)	0.0 (0.0)	12.6 (59.1)	6.2 (11.4)	4.9 (20.5)	1.8 (2.3)	0.0 (0.0)	0.0 (0.0)	1.7 (4.5)	43 (5.2)
Pvt Empl Svc	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	1.2 (50.0)	0.5 (50.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	2 (0.2)
Dir Application	27.5 (22.3)	24.6 (7.4)	20.4 (22.3)	16.0 (6.9)	30.2 (29.3)	24.6 (7.4)	12.5 (1.1)	4.8 (4.8)	13.0 (1.6)	188 (22.4)
Newspaper	0.0 (0.0)	0.0 (0.0)	5.8 (35.3)	9.9 (23.5)	3.8 (20.6)	1.8 (2.9)	0.0 (0.0)	8.1 (14.7)	4.3 (2.9)	34 (4.0)
Friends-Rel	54.0 (17.8)	68.4 (8.3)	54.9 (24.0)	58.0 (10.0)	52.7 (20.4)	66.7 (8.1)	62.5 (2.1)	56.5 (7.4)	30.4 (1.5)	469 (56.1)
Other	15.7 (38.7)	5.3 (4.8)	5.8 (19.4)	3.7 (4.8)	3.3 (9.7)	3.5 (3.2)	18.8 (4.8)	6.5 (6.5)	21.7 (8.1)	62 (7.4)
Number	153	57	206	81	182	57	16	62	23	

Table 149

Job-Finding 1969 by Change in Job Quality 1966 - 1969
Whites - Sample E

Method	Decrease	Stationary	Increase
School Empl Svc	5.0	0.5*	5.4
Pub Empl Svc	5.0	2.7	2.7
Pvt Empl Svc	0.0	2.7	3.1
Direct Application	20.0	20.3	24.1
Newspaper	12.5	8.0	5.1
Friends-Relatives	45.0	40.6	42.8
Other	12.5	25.1	16.7
Number	40	187	257
Significance	x^2(19$\underline{w}$ 12 D.F.) = .08 v^2 = .14		

Table 148

Job-Finding 1966 by Change in Job Quality 1966 - 1969
Whites - Sample E

Method	Decrease	Stationary	Increase
School Empl Svc	2.7	3.7	4.1
Pub Empl Svc	3.6	3.7	2.9
Pvt Empl Svc	1.8*	2.4	0.5
Direct Application	24.3	26.2	26.1
Newspaper	8.1	6.1	5.0
Friends-Relatives	45.9	44.6	53.6
Other	13.5	13.3	7.7
Number	111	542	582
Significance	x^2(24$\underline{w}$ 12 D.F.) = .02 v^2 = .09		

*Less than 5 cases.

Table 150

Job-Finding 1966 by Job Quality 1969
Whites

Method	Low	Medium	High
School Empl Svc	2.0*	3.9	4.6
Pub Empl Svc	2.0*	2.2	4.6
Pvt Empl Svc	0.0	1.3	1.6
Direct Application	15.7	26.0	25.0
Newspaper	3.9	4.4	6.1
Friends-Relatives	54.9	49.7	46.5
Other	21.6	12.5	11.7
Number	102	593	703
Significance	$x^2(23^{W}12$ D.F.$) = .02$ $v^2 = .09$		

*Less than 5 cases.

Table 151

Labor Market Participation by Age and Education for Whites - 1968

Age

Extent of Participation	14-17	18-21	22+
Low	29.6	8.9	2.2
Medium	65.8	64.3	49.4
High	4.6	26.8	48.4
Number	459	784	622
Significance	x^2 (420$\underline{w}$4 D.F.)=.0001 v^2=.31 Gamma=.63		

Education

Extent of Participation	0-11	12	13-15
Low	17.3	5.4	9.5
Medium	55.9	57.2	66.2
High	26.8	37.4	24.3
Number	392	821	452
Significance	x^2 (81$\underline{w}$4 D.F.)=.0001 v^2=.14 Gamma=.09		

Table 152

Job-Finding by Labor Market Participation in 1966, 1968 and 1969 (Whites)

	1966			1968			1969		
	Low	Med	High	Low	Med	High	Low	Med	High
Schools	9.6	5.2	3.5	11.4	7.6	1.3	13.4	5.6	2.3
Public Empl. Svc.	1.1	1.5	4.0	2.4	3.3	1.7	2.7	2.6	3.5
Private Emp. Svc.	0.2	1.3	1.5	0.0	2.0	3.0	1.3	2.1	1.6
Employers	21.6	26.6	24.7	24.8	29.5	35.5	16.1	21.0	26.5
Newspapers	4.3	4.9	4.5	2.4	5.0	6.9	4.0	6.6	7.4
Friends-Relatives	53.1	47.2	46.8	52.4	42.9	42.0	47.7	48.3	40.1
Other	10.0	12.0	14.9	6.7	9.8	9.5	14.8	14.7	18.7
Number	139	1167	596	210	644	231	147	605	257
Significance	x^2(40w12D.F.)=.0001 v^2=.09			x^2(37w12D.F.)=.001 v^2=.13			x^2(32w12D.F.)=.001 v^2=.12		

Table 153

Job-Finding by Labor Market Participation in 1966, 1968, and 1969 (Blacks)

	1966			1968			1969		
	Low	Med	High	Low	Med	High	Low	Med	High
Schools	5.9	5.5	0.6	16.4	5.9	0.0	11.8	3.5	1.2
Public Empl. Svc.	1.5	5.7	8.6	4.9	4.7	5.8	5.9	8.8	4.8
Private Emp. Svc.	0.0	0.4	0.0	0.0	2.5	4.7	0.0	1.4	1.2
Direct Application	25.7	22.0	19.3	22.3	25.1	24.4	20.0	25.1	33.7
Newspapers	2.0	4.9	4.2	3.9	4.1	3.5	3.5	3.9	2.4
Friends-Relatives	56.4	54.0	61.4	36.9	48.3	55.8	42.4	49.1	49.4
Other	8.4	7.4	6.0	14.6	8.5	5.8	16.5	8.1	7.2
Number	202	472	160	103	319	86	85	283	83
Significance	$x^2(24\underline{w}12\ \text{D.F.})=.01$ $v^2=.12$			$x^2(38\underline{w}12\ \text{D.F.})$ $=.0005$ $v^2=.18$			$x^2(25\underline{w}12\ \text{D.F.})=.01$ $v^2=.16$		

Table 154

Job-Finding by Alternate Longitudinal Measures of Labor Force Participation
1966 (Sample E)

	Stretches Unemployment				Weeks Worked		
Method	None	1	2 or more		Low**	Moderate	High
School	4.2	5.5	2.7		5.7	4.8	3.2
Pub.Emp.Svc.	3.5	2.7	3.6		1.7	2.7	4.4
Pvt.Emp.Svc.	1.4	0.4*	2.3		0.3	0.9	2.1
Direct Applic.	23.4	27.7	27.3		23.1	27.3	24.7
Newspapers	4.0	5.9	8.6		5.4	7.5	4.1
Friends-Relatives	49.1	48.4	44.9		54.5	47.7	45.7
Other	14.4	9.4	10.5		9.4	9.0	15.8
Number	829	256	256		299	333	709
Significance	x^2(22$\underline{v}$.9D.F.)=.02 v^2=.09				x^2(35$\underline{v}$12D.F.)=.01 v^2=.11		

*less than 5 cases

Low = 1 to 171 weeks; Moderate = 172 to 199; High = 200 to 208

Table 155

Job-Finding by Alternate Longitudinal Measures of Labor Market Participation (Sample E)

Method	Stretches Unemployment None	1	2 or more		Weeks Worked Low	Moderate	High
School	5.1	3.6	2.3		5.9	3.4	2.0
Pub.Emp.Svc.	2.2	4.3	3.4		3.4	5.5	1.0
Pvt.Emp.Svc.	2.9	2.9	1.1		2.5	0.7	3.4
Direct Applic.	14.7	25.7	32.0		24.9	21.9	20.1
Newspapers	5.1	6.4	8.0		5.9	3.4	8.8
Friends-Relatives	47.8	42.1	39.4		45.6	44.5	41.7
Other	22.1	15.0	13.7		11.8	20.5	23.0
Number	272	140	175		237	146	204
Significance	x^2(29w12D.F.)=.004 v^2=.15				x^2(27w12D.F.)=.007 v^2=.15		

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